

DOCUMENT RESUME

ED 152 495

SE 023 765

TITLE Report on the Role Delineation Project for Practitioners in Environmental Health.

INSTITUTION National Environmental Health Association, Denver, Colo.

SPONS AGENCY Health Resources Administration (DHEW/PHS), Bethesda, Md. Bureau of Health Manpower.

PUB DATE 31 Jan 77

CONTRACT 231-75-0211

NOTE 124p.

EDRS PRICE MF-\$0.83 HC-\$6.01 Plus Postage.

DESCRIPTORS Credentials; Employee Responsibility; *Environmental Education; *Environmental Technicians; *Job Training; Public Health; Reports; *Role Models; *Sanitation; Technical Occupations

ABSTRACT

This publication is a summary report of a project to identify the roles and functions of sanitarians. Described are the project's function, work, members, methodology, and responsibilities. One of the important works of this project is a role delineation model. For three entry-level positions selected from the sanitarian career category, the knowledge, skills, and attributes necessary for practitioner proficiency are communicated through detailed performance statements. These statements, which comprise the role delineation model, apply to practitioners employed in federal, state and local governmental settings and private industry. The report also includes recommendations for development of curriculum design, recommendations on credentialing of environmental health personnel, and an evaluation by the project director of the role delineation study. (MR)

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REPORT ON THE ROLE DELINEATION PROJECT FOR
PRACTITIONERS IN ENVIRONMENTAL HEALTH

Contract # 231-75-0211

Prepared by:

National Environmental Health Association

1600 Pennsylvania

Denver, Colorado 80203

January 31, 1977

For:

Department of Health, Education, and Welfare
United States Public Health Service
National Institutes of Health
Health Resources Administration
Division of Associated Health Professions
Bureau of Health Manpower

SE 023 765

PREFACE

This report was prepared by the National Environmental Health Association to fulfill the requirements for Contract #231-75-0211, submitted to the United States Public Health Service, Health Resources Administration, Bureau of Health Manpower, on January 31, 1977. The Project Director was Dr. Lawrence J. Krone. Administrative Assistant for the project was Miss Melissa Koenning.

The project described in this report began January 1, 1976 and was completed January 31, 1977. The project staff was assisted by an Advisory and Steering Committee as well as special consultants, all of whom are listed in a separate section.

Special gratitude is extended to Mr. William Holland, Project Officer, Washington, D.C., for his continued advice and encouragement throughout the project. The project staff would also like to thank Dr. Margaret Wilson, Educational Specialist, Washington, D.C., for her helpful guidance throughout project activities.

Special appreciation is also extended to Mr. Nicholas Pohlit, Executive Director of the National Environmental Health Association, and fellow Association staff and members, for their guidance and assistance throughout the contract period.

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INTRODUCTION

The purpose of the project described in this report is to identify the roles and functions of those practitioners in the field of environmental health traditionally referred to as Sanitarians. For three entry-level positions selected from this career category, the knowledge, skills, and attributes necessary for practitioner proficiency are communicated through detailed performance statements. These performance statements, which comprise the Role Delineation Model, apply to practitioners working in federal, state, and local governmental settings and private industry, and will be used as the basis for the development of educational programs and proficiency examinations.

DESCRIPTION AND SCOPE OF WORK

In accordance with contract specifications, the National Environmental Health Association:

1. Established an Advisory Committee of 16 persons, including representatives of the following interests:

- Institutions, organizations, and agencies employing environmental health personnel, including federal, state, and local agencies and private industry
- Practicing environmental health professionals and technicians
- Practicing environmental health administrators and specialists
- Educators of environmental health personnel with major focus on undergraduate education
- Federal manpower regulatory agencies
- Health Resources Administration, Bureau of Health Manpower

The following associations and organizations were invited to submit nominations for Advisory Committee members, and also to recommend consultants:

- American Public Health Association (Environmental Health Section)
- American Academy of Sanitarians
- National Society of Professional Sanitarians
- International Association of Milk, Food, and Environmental Sanitarians

The following associations and organizations were invited to send an observer to the sessions, without charge to the contract:

- American Medical Association
- American Hospital Association
- American Public Health Association
- U.S. Department of Defense
- U.S. Department of Labor
- U.S. Office of Education
- U.S. Veteran's Administration

2. Established a Steering Committee of four persons to provide assistance to the Project Director, and appointed four consultants as approved by the Project Officer.

3. Prepared a current appropriate position classification for the field of environmental health, showing:
 - major areas of practice
 - the hierarchy of the positions
 - levels of each position (entry or advanced)
 - type of position (generalist or specialist)
 - function of position (consultation, education, etc.)
4. Determined the major responsibilities and stated them as performances, for each of the identified positions in the practitioner classification.
5. Selected three adjacent generalist entry-level positions within the hierarchy and developed complete role delineation for each. This consisted of clear statements of both the major and specific responsibilities, stated as performances, and covering the knowledge and skill competencies required for a practitioner filling the position.

These responsibilities have been given in sufficient detail to communicate clearly the knowledge and skill competencies required by the practitioner in the given position, and thus may serve as the basis for the development of educational programs and proficiency examinations.
6. Determined weighting of major and specific responsibilities in terms of their importance in provision of quality environmental health services.
7. Utilized the results of previous studies and investigations as appropriate in the successful completion of contract requirements.

PROJECT PARTICIPANTS

4

Advisory Committee

The Advisory Committee met together a total of four times during the contract period so that the project staff could utilize their expertise in the analysis and evaluation of data, development of information sources, and effective group decision-making. Members of the Advisory Committee were as follows:

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Steering Committee

The Steering Committee met a total of six times during the contract period to provide close guidance to the project staff in gathering and evaluating data, acting as a check-and-balance to budget expenditures, and assuring time scheduling in meeting contract specifications. Members of the Steering Committee were as follows:

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Consultants

The following consultants served as special resource persons to help insure the accuracy and acceptability of the project results:

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GLOSSARY

ACCREDITATION:	the process by which an agency or an organization evaluates and recognizes a program of study or an institution as meeting certain predetermined qualifications or standards
ADJACENT:	neighboring (e.g., "adjacent" positions within the position hierarchy)
ADVANCED LEVEL:	those ranks within a position classification requiring more complex competencies than those at the entry level
ATTRIBUTES:	emotional characteristics or qualities which reflect the practitioner's values and attitudes
CERTIFICATION:	process by which a non-governmental agency or association grants recognition to an individual who has met certain predetermined qualifications specified by that agency or association
COMPETENCY:	the ability to carry the total performance responsibilities of a given practitioner position
COMPETENCY ASSURANCE:	the certainty that the practitioner is able throughout his career to carry responsibilities of any role he fills
COMPETENCIES:	abilities (knowledge and skills)
CREDENTIALING:	recognition of professional or technical competence; may include registration, certification, licensure, professional association membership, or the awarding of a degree in the field
CRITERION-REFERENCED TEST:	a type of test used to ascertain an individual's status with respect to well defined knowledge and skill competencies related to job performance requirements
DELINEATE:	represent accurately and clearly through the medium of words
ENTRY LEVEL:	the lowest rank within a position classification requiring minimum basic skills and knowledge
ENVIRONMENTAL HEALTH:	term used to describe the relationship between man's health and his physical environment in which harmony is achieved through man's attempts to control or modify the physical, chemical, or biological factors influencing his world

ENVIRONMENTAL HEALTH PRACTITIONER:	individual whose vocational efforts are directed toward controlling, preserving, or improving environmental factors so that optimum health, safety, comfort and well-being may be achieved for this and future generations
ENVIRONMENTAL HEALTH PROBLEM:	a reasonably discrete environmental factor having an impact on man's health, safety, comfort, and well-being
FUNCTIONS:	spheres of activities in which practitioner perform in relation to delivery of health services
GENERALIST:	type of position within a classification system referring to those people who devote themselves to the performance of a variety of related activities; crossing more than one program area
GENERIC:	representative of an entire group
HIERARCHY:	a series of items classified in ranks or orders; refers to a series of practitioner positions classified by type, level, and function
IDENTIFIED:	established by identity and description
INHERENT:	intrinsic; belonging by nature; infixed within
INTERPERSONAL:	term used to describe practitioner activities involving interchange and interaction among persons
KNOWLEDGE:	the state of understanding; perception of truth
LICENSURE:	process by which an agency of government grants permission to persons meeting predetermined qualifications to engage in a given occupation and/or to use a particular title
MAJOR RESPONSIBILITY:	broad areas of performance executed by a practitioner, given as performance statements
MINIMUM BASIC:	the smallest scope and lowest level of attainment required in the competencies and attributes
NORM-REFERENCED TEST:	type of test used to ascertain how individuals perform in relation to one another, on the basis of items selected to produce response variance
PERFORMANCE:	activity carried out by a practitioner
POSITION:	specific practitioner grouping based upon the performance of activities

POSITION CLASSIFICATION:	system of categories for practitioner positions in environmental health
POSITION #1: (Entry-Level/Generalist)	term used within report to identify that practitioner who is involved primarily in field sampling and testing, inspections, and public information activities conducted under the general supervision of more advanced staff
POSITION #2: (Entry-Level/Generalist)	term used within report to identify that practitioner who is involved primarily in investigative, consultative, planning, and education activities, conducted under general supervision of more advanced staff
POSITION #3: (Entry-Level/Generalist)	term used within report to identify that practitioner who is involved primarily in supervisory, administrative, planning, and enforcement activities under minimal supervision by more advanced staff
PRACTITIONER:	an individual who is participating in on-job activities
PROFIENCIENY TESTING:	method to assess technical knowledge and skills related to the performance requirements of a specific job; such knowledge may have been acquired through formal or informal means
PROGRAM AREA:	major area of practice reflecting the organization of methods and activities designed to deal with or solve environmental health problems
REGISTRATION:	process by which qualified individuals are listed on an official roster maintained by a governmental or non-governmental agency
ROLE:	the configuration of major and specific responsibilities for a practitioner
ROLE DELINEATION (PROCESS):	determination of specific responsibilities essential to practitioner goal attainment
ROLE DELINEATION (PRODUCT):	identified major and specific responsibilities which must be carried out by the individual in the given generic practitioner position
SPECIALIST:	type of position within a classification system referring to those people who devote themselves to a particular program or a few programs, and thereby narrow and intensify their expertise within that specialty
SPECIFIC RESPONSIBILITIES:	essential for the execution of a major responsibility

TECHNICAL:

term used to describe those practitioner activities involving the manipulation of objects, ideas, resources, and information

VERIFICATION:

checking the soundness

METHODOLOGY

1. Introduction to Methodology
2. Diagram of Project Methodology
3. Time Schedule of Project Activities
January 1, 1976 - January 31, 1977

INTRODUCTION TO METHODOLOGY

The methodology for the project work described in this report consists of two concurrent but separate processes: (1) committee action, through which Advisory and Steering Committee members analyze and evaluate data and make recommendations; and (2) project staff research, through which the project staff members conduct literature reviews; analyze previous studies, reports, and job specifications; and hold meetings with special consultants.

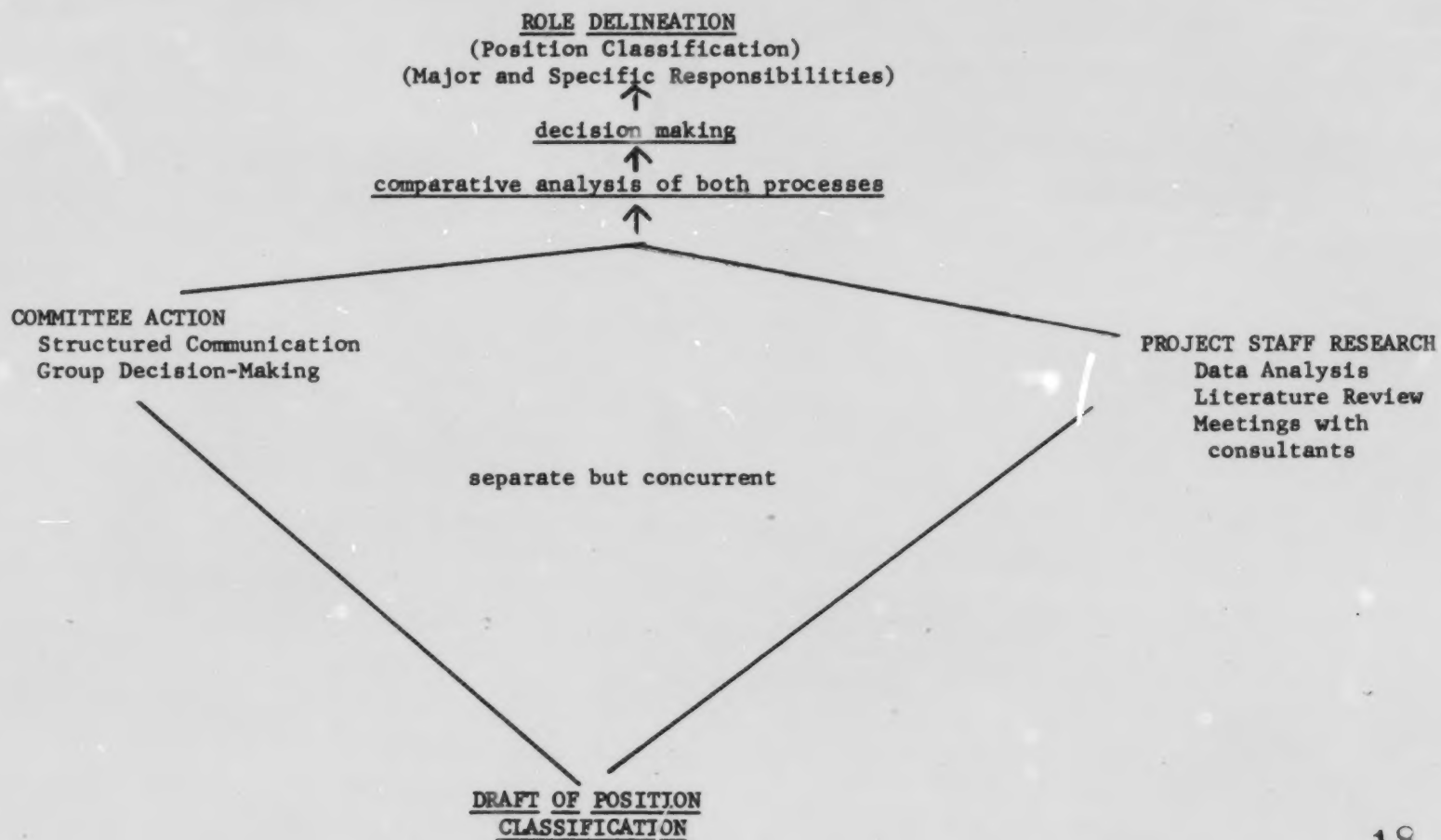
Both of these processes involve work on a "draft" position classification, from which Major and Specific Responsibilities are developed based on the three positions identified.

In accordance with contract specifications, only secondary data (i.e., previously completed works) could be used as the basis for the development of the role delineation model. Project methodology was, therefore, limited by this restriction.

The diagram given on the following page illustrates the methodology utilized for the role delineation project. This section also gives the "Time Schedule for Project Activities," detailing the methods and procedures used during the contract period.

DIAGRAM OF PROJECT METHODOLOGY

The diagram below illustrates the two separate but concurrent processes used in connection with the role delineation project, including (1) committee action and (2) project staff research.



TIME SCHEDULE OF PROJECT ACTIVITIES
January 1, 1976 - January 31, 1977

- JANUARY 1976:
- Began project activities under direction of Project Director on 1/1/76
 - Initial retrieval of information sources:
 - literature review
 - secondary data (previous studies and reports, job descriptions and specifications, etc.)
 - Selection of Steering Committee members
 - Conference on "Competency Assurance," Washington, D.C., attended by Project Director
- FEBRUARY 1976:
- First Steering Committee Meeting held, 2/5/76:
 - suggestions given for members to serve on Advisory Committee
 - guidance in selection of appropriate research methodologies
 - information resources given for project data
- MARCH 1976:
- Advisory Committee list finalized
 - Initial "working definitions" drafted
 - Secondary requests for project data from:
 - Association affiliates from each state
 - State Health Departments, Merit System Councils, and/or Agencies
 - government-related agencies at federal, state, and local levels
 - private institutions (universities, hospitals, etc.)
 - private industry
 - Checklist-type survey sent to all project committee members for expert opinion regarding:
 - parameters for the project
 - definitions of terms to be used
- APRIL 1976:
- Joint Advisory-Steering Committee Meeting held, 4/12/76 and 4/13/76:
 - committee members divided into two groups for discussion:
 - Group A approached role delineation through the development of Major Responsibilities based on program areas and selected positions

--Group B approached role delineation through development of Major Responsibilities common to all program areas without assignment to specific positions

- Job specifications and/or descriptions received from 80% of sources from which requested

MAY 1976:

- Project staff combined methodologies of Groups A and B through:
 - modified "task analysis" based on sampling of job specifications from 18 selected states
 - development of "commonalities" found in task analysis data
 - assignment of tasks to a draft position classification system
- Task statements written according to standardized format and coded on Burroughs Unisort cards
- Development of task bank of coded task cards to facilitate information retrieval

JUNE 1976:

- Sample of 50 task statements sent to committee members for review and analysis
- Joint Advisory-Steering Committee Meeting held, 6/17/76 and 6/18/76:
 - assignment of task statements to draft position classification, based on task bank of 500 statements
 - development of common Major Responsibilities drawn from task statements reviewed
- Annual Education Conference, Nashville, Tennessee, sponsored by National Environmental Health Association 6/27/76 - 7/1/76:
 - conducted informal interviews with field personnel
 - distributed information relating to role delineation project
 - talks given by William Holland, Project Officer, and Dr. L. Krone, Project Director

JULY 1976:

- Detailed analysis and tabulation of data gathered in June committee meeting
 - analysis of task statements utilizing "Functional Analysis System" (Sidney Fine's work)
 - Preliminary Draft: "Position Classification and Major Responsibilities"

AUGUST 1976:

- Submission of Preliminary Draft, "Position Classification and Major Responsibilities," to committee members for revision and comments
- Steering Committee Meeting held, 8/14/76:
 - review and analysis of Preliminary Draft
 - suggestions for methodology in retrieving Specific Responsibilities
- Advisory Committee Meeting held, 8/23/76 and 8/24/76:
 - established majority agreement on Preliminary Draft
 - began work on Specific Responsibilities through designating knowledge, skills, and attributes within program areas
- Submitted Preliminary Draft, "Position Classification and Major Responsibilities," to Project Officer as required on 8/31/76

SEPTEMBER 1976:

- Continued refinement of Major Responsibilities
- Developed Specific Responsibilities based on thorough analysis of activities conducted in various program areas
- Assessed knowledges, skills, and attributes as inherently stated in performance statements
- Feedback on Preliminary Draft from members of Colorado Environmental Health Association

OCTOBER 1976:

- Review and analysis of Specific Responsibilities by Steering Committee members through the mail
- Feedback on Preliminary Draft received from various parts of country
- Continued refinement of Position Classification and Major Responsibilities by project staff

NOVEMBER 1976:

- Steering Committee Meeting held, 11/5/76:
 - format for presentation of Specific Responsibilities modified and revised
 - evaluation of method for presenting program-area content through "examples"
- Revised draft of "Position Classification and Major Responsibilities" as well as "Specific Responsibilities" forwarded to all committee members for review

DECEMBER 1976:

- Final Joint Advisory-Steering Committee Meeting held, 12/3/76:
 - final revisions made in Major and Specific Responsibilities
 - majority opinion reached regarding specific problems, such as use of job titles
 - review and analysis of portions of Final Report draft

JANUARY 1977:

- Final revisions in project report by project staff
- Draft of Final Report sent to Project Officer in Washington, D.C. for review, mid-January
- Final Report submitted to Bureau of Health Manpower, Washington, D.C. in 15 copies as required, January 31, 1977

SUMMARY OF PROJECT WORK

Introduction to Summary of Project Work

Section A: Parameters for the Project

Section B: Position Classification System

Section C: Role Delineation Model

INTRODUCTION TO
SUMMARY OF PROJECT WORK.

The summary of work developed in connection with this role delineation project contains three sections, each of which reflects an essential aspect of the total study.

Section A establishes the "Parameters for the Project" through a discussion on the field of environmental health and a historical review describing the environmental health practitioner from the 1930's to the 1970's.

Section B contains the "Position Classification System" developed as a result of this study. This section provides a diagram of the system, and also gives descriptions relating to the major areas of practice as well as the hierarchy, levels, types, and functions of positions identified in the diagram.

Section C contains the Role Delineation Model, composed of the Major and Specific Responsibilities (stated as performances) for three entry-level, generalist-type positions selected from the Position Classification System described in Section B.

Summary of Project Work

Section A: Parameters for the Project

1. "The Field of Environmental Health"
2. "The Environmental Health Practitioner"

Summary of Project Work
Section A

PARAMETERS FOR THE PROJECT

1. "The Field of Environmental Health"

The field of environmental health is composed of individuals whose vocational efforts are directed toward controlling, preserving, or improving environmental factors so that optimum health, safety, comfort, and well-being may be achieved for this and future generations. In order to achieve this goal, environmental health manpower must represent diverse disciplines and career categories.

The following are only a few examples of personnel who may fall within the broad field of environmental health, while also maintaining identity within a distinct career category:

Engineers: "Sanitary Engineers," "Safety Engineers," etc.

Educators: Professors, Instructors, etc.

Scientists: "Health Physicist," "Soil Scientist," "Limnologist," etc.

Many of the career categories which comprise the broad field of environmental health have developed career descriptions which clearly identify the scope of practitioner activities. In fact, a number of such career categories have established their own licensing and credentialing mechanisms. Furthermore, the various disciplines upon which the field of environmental health draws (e.g., physical sciences, social sciences, etc.) can be applied to other fields as well. Therefore, while many career categories and disciplines contribute to the broad

field of environmental health, they are not all subject to role delineation within the parameters of this particular project.

The project staff, with agreement from the Project Officer and committee members, decided to establish parameters for the project around that group of practitioners whose activities cross many disciplines and career categories. This practitioner has traditionally been referred to as the "Sanitarian," and is unique within the field of environmental health by representing a "multi-disciplinary" effort toward controlling, preserving, or improving environmental factors to achieve optimum health and safety for all people.

Today, Sanitarians have moved into many new types of positions and have assumed expanding roles within the field of environmental health. Through such movement, these practitioners have acquired varying job titles and duties. A number of states have incorporated such descriptive job titles as the "environmentalist," "environmental health specialist," or "environmental health sanitarian." On the other hand, many states continue to use the traditional title of Sanitarian as well as the designation of "R.S." (Registered Sanitarian).

In view of this diversity of job titles from state to state, it was decided that references to specific titles be eliminated from the project report. Since this project is national in scope, the generic term "environmental health practitioner" will be used when referring to the traditionally titled "Sanitarian."

In order to illustrate the history reflecting definitions and descriptions for the environmental health practitioner, a brief background of this career category is appropriate.

A. PARAMETERS FOR THE PROJECT

2. "The Environmental Health Practitioner"

Over the years, there have been a number of attempts to define who the environmental health practitioner is and what he does. In 1937, for instance, "The Sanitarian and His Duties" was published in response to the paucity of information available which described "...the field of regulatory inspection which safeguards the life, health, and well-being of the community." ¹ This study emphasized the areas of communicable disease control, water supply, sewage disposal, food sanitation, dairy products, and general sanitation. In 1942, the focus on the environmental health practitioner's inspectional duties continued to be emphasized, as in this definition of a Sanitarian:

...an educator trained in the field of sanitary science and technology who is employed by an official health agency to carry out educational and inspectional duties and enforce the law in the field of environmental sanitation. ²

Sanitarians began, however, to make progress in assuring a more professional status for practitioners through the passage of registration acts which designated acceptable educational and/or experience requirements. The State of California enacted the first Registration Act for Sanitarians in 1945. This began a trend in obtaining more valid indications for the professional competency of practitioners, although acceptable definitions and descriptions for the roles and duties of "Sanitarians" on a nationwide basis were still lacking.

As the profession expanded and became more sophisticated, in order

to deal with the increasingly complex problems of environmental health, the search for an accurate definition for the Sanitarian intensified. In 1960, one definition appeared describing the Sanitarian as "...one whose profession is to apply health measures for the public health." ³ While this definition did remove emphasis on inspectional procedures, it also unfortunately fit all other occupations within the public health field. Other definitions attempted to more accurately define the expanding role of the Sanitarian. For instance, the Sanitarians Joint Council adopted the following definition in 1963:

The Sanitarian is a specialist in the control of the environment for better health. He is an advocator and applier of practices for the purpose of controlling hazardous elements in the environment. He is an organizer of economic and social forces for the purpose of providing and maintaining a clean and sanitary environment for the betterment of mankind. ⁴

By 1964, the appropriateness of the traditional title "Sanitarian" was seriously questioned. A number of persons voiced opinions that the name itself should be replaced to describe the increasingly dynamic scope of the field:

Sanitation, in the mind of the general public, is associated with garbage collection and related activities... It is hard to connect a professional person with such activities and "sanitarian" may never gain the complete desired acceptance because of this association... ⁵

In spite of objections to the traditional title, however, the term "Sanitarian" continued to be used by many individuals, while the search for an accurate description of his duties continued.

By 1967, 31 states had achieved registration acts for the Sanitarian which greatly clarified the professional qualifications for practitioners,

but still failed to provide an adequate description of his duties. Gordon stressed this point in 1970 when he stated that there exists "...an urgent need for thorough task analysis for selected environmental positions (since) we really do not have the data to indicate that we are producing or utilizing personnel matched to job tasks." ⁶

Pursuant to the need for more analytical descriptions of job tasks, a number of research studies were conducted during the 1970's. A study completed by McIntosh in 1970 entitled "An Analysis of Role Activities of Sanitarians" ⁷ provided some of the first information relevant to role delineation. This work was followed in 1971 by Koren's "An Instrument for Evaluating Proficiency of Competencies of Environmental Health Interns," ⁸ which assembled a number of the competencies needed by entry-level practitioners in the field of environmental health.

A particularly innovative approach was made by VanDusen in 1974 with a Masters Thesis entitled "A Study of Performance Objectives for the Entering Level Environmental Health Specialist." ⁹ VanDusen incorporated current educational philosophy in developing "performance objectives," and also differentiated between technical skills and interpersonal skills.

While the above cited studies tended to emphasize the baccalaureate-degreed professional, some research projects attempted to designate the roles and duties of practitioners who did not have a four-year college degree. Some of these studies include the 1974 Technomics report, "Competency Curriculum for Environmental Health Assistant" ¹⁰; "Job Competency Needs of Sanitarian Aides" ¹¹, completed in 1975; and the 1976 "Report of Competency Survey for Environmental Curriculum Improvement Project." ¹²

Other attempts to accurately define the field of environmental health include studies conducted by state agencies or commissions, such as the "Ohio Environmental Health Manpower Planning System" ¹³ and the "Survey of Environmental Health Services in Nine States." ¹⁴

While each of the studies noted above represents a valid attempt to portray the practice of environmental health, each is also restricted to descriptions of practice unique to a few specific states among 50 in the United States. As of January, 1976, no attempt had been made to develop a general model that would represent the roles and functions of environmental health practitioners on a national scope. The role delineation study presented in this report represents the first such national project, and is the result of the growing need for an evaluation mechanism to more effectively assess the competencies of environmental health practitioners in the delivery of environmental health services.

In summary, the history of the environmental health practitioner reflects dynamic progress, from emphasis on regulatory inspections in the 1930's to the multi-dimensional scope of responsibilities attributed to today's professional. It is nevertheless appropriate to reflect upon the following statement made nearly twenty years ago:

No matter what titles we appropriate for our use, what degrees, what licenses we acquire, how hale and hearty we are in exerting our qualifications... we cannot be accepted as professional men until we act as professional men. Outer pressures will not keep us in our quest for recognition..., but inner development will be our key. ¹⁵

This "inner development" will determine the future direction of environmental health, for the field has grown to new and broader dimensions that

challenge each practitioner to help shape the destiny of our world and its people. Today's environmental health practitioner can affect human destiny positively by taking the lead toward assuring optimum health, safety, comfort and well-being for this and future generations.

References cited in Bibliography

Summary of Project Work

Section B. Position Classification

1. "Introduction to Position Classification"
2. "Major Areas of Practice"
3. "Hierarchy of Positions"
4. "Levels of Positions"
5. "Types of Positions"
6. "Functions of Positions"

B. POSITION CLASSIFICATION

1. "Introduction to the Position Classification"

"Position Classification" refers to a system of categories for practitioner positions in environmental health. A position is a specific practitioner grouping based upon the performance of activities. The position classification developed as a result of this study is based on the career category traditionally referred to as the Sanitarian.

The purpose of a position classification is to clearly differentiate the various kinds of environmental health positions and their relationships to each other. The classification serves as the framework from which to define the Major and Specific Responsibilities of practitioners, and also serves to clarify potential career mobility pathways.

Three positions have been identified in this study to represent the generic practitioner groupings in environmental health. Due to diversity of job titles from state to state, these positions have been identified as:

Position #1: that environmental health practitioner who is involved primarily in field sampling and testing, inspections, and public information activities

Position #2: that environmental health practitioner who is involved primarily in investigative, consultative, planning, and education activities

Position #3: that environmental health practitioner who is involved primarily in supervisory, administrative, planning, and enforcement activities

The focus in this study on the above three identified positions does not necessarily exclude the existence of other environmental health positions as may be found from state to state. Furthermore, combinations of activities may be

found to exist that are different from those identified above. The position classification given in this report represents a generic system developed for national usage as a flexible framework from which to describe what the environmental health practitioner does on the job.

Each of the three positions identified in this study may be classified according to the following:

Major Areas of Practice, which reflect major entities or "program areas" in environmental health

Hierarchy of Positions, which designates rank and order of positions to indicate career mobility pathways

Levels of Positions, which indicate the degree of complexity of activities performed at a given position as either "entry" or "advanced"

Types of Positions, which designate either a "generalist" or "specialist" focus, defined in terms of program area emphasis

Functions of Positions, which refer to spheres of activities performed by the practitioner, given as concise (one word) descriptions

Each item is described fully in subsequent portions of this section. A diagram of the position classification is shown on the following page. The format used for this diagram is given below.

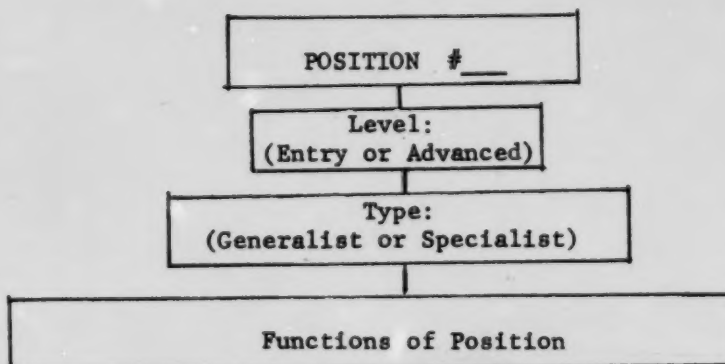
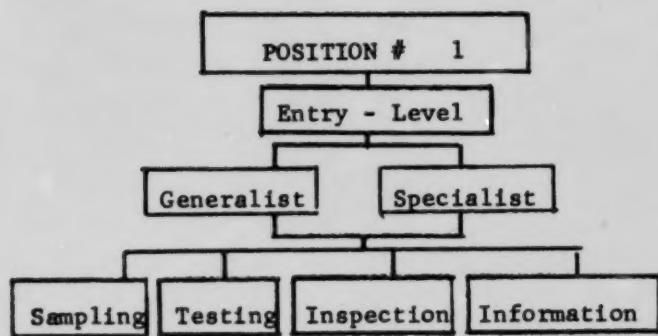
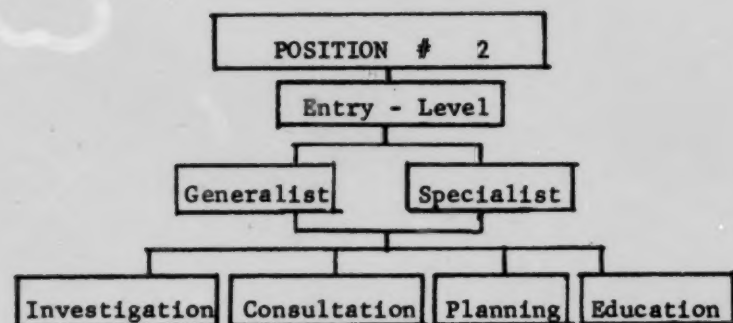
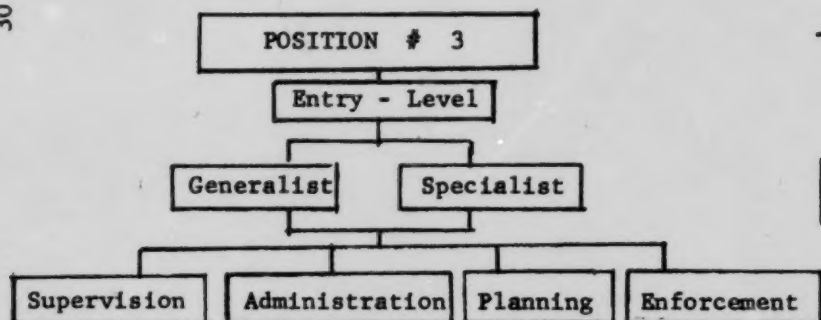
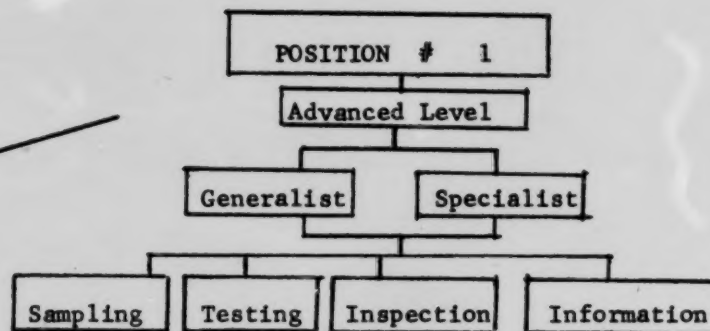
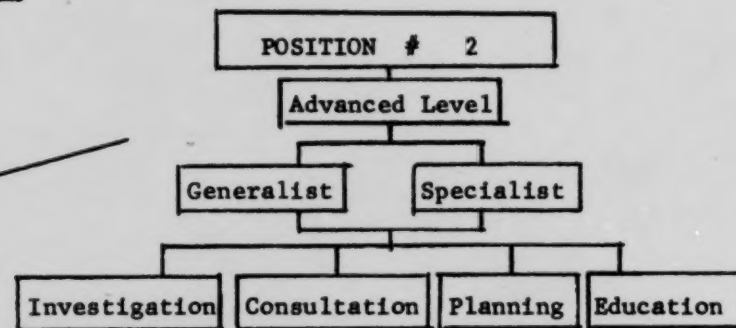
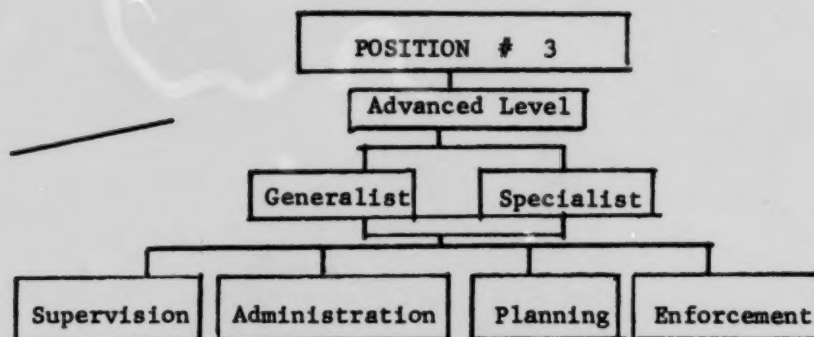


DIAGRAM OF POSITION CLASSIFICATION

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B. POSITION CLASSIFICATION

2. "Major Areas of Practice"

The organization of manpower activities and methodologies designed to deal with or solve various environmental health problems describes a program area approach. Program areas, therefore, reflect the major areas of practice for environmental health practitioners.

For this project, the program areas in environmental health are described in terms of goals. It is the overall goal of environmental health programs to assure an environment that will confer optimal health, safety, comfort, and well-being for this and future generations. Goals for each of fourteen program areas in environmental health are given on the following page. Since program area names and activities differ from state to state, the attached listing represents a general composite of program areas for standard reference.

The program areas identified in this sub-section provide the basis for the distinction between "generalist" and "specialist" positions, as defined in a subsequent portion of this report.

Program Area Goals for Environmental Health:

1. Air Pollution Control: To assure a community air resource conducive to positive human health, which does not injure our environment and is aesthetically desirable
2. Food Protection: To assure safe, wholesome, and sanitary food and food products wherever produced, processed, distributed, transported, or served
3. Hazardous Substances and Product Safety: To assure protection from unhealthful or unsafe substances or products
4. Housing (Shelter): To assure adequate, safe, and healthful housing for all persons
5. Institutional Environmental Control: To assure that institutions such as hospitals, schools, nurseries, and penal institutions are operated so as to prevent health and safety problems
6. Land Use: To assure that land resources are planned and utilized in such a manner that will prevent health and safety problems for this and future generations
7. Noise Control: To protect the public from or prevent hazardous or annoying noise levels in residential, business, industrial, or recreation areas and structures
8. Occupational Health and Safety: To assure the positive health and safety of workers in places of employment through controlling hazardous environmental factors
9. Radiation Safety: To prevent unnecessary or hazardous exposure to any types of radiation
10. Recreational Areas and Waters: To assure that recreational and swimming areas are designed and maintained so as to prevent health and safety problems
11. Solid Waste Management: To assure that all solid wastes are managed so as not to create environmental health or aesthetic problems
12. Vector Control: To control insects, rodents, and other animals which adversely affect man's health, safety, and comfort
13. Water Pollution Control: To restore or maintain the quality of water resources by the treatment or prevention of polluted water
14. Water Supply: To assure the provision and maintenance of water supplies which are safe and adequate in quantity and quality

B. POSITION CLASSIFICATION

3. "Hierarchy of Positions"

The hierarchy of positions for practitioners in the field of environmental health is illustrated in the position classification diagram. In order to illustrate this hierarchy and yet not use job titles, the position headings of #1, #2, and #3 have been used to identify those positions selected for delineation in this study.

Individuals performing in any of the three positions may achieve career mobility within the hierarchy. This mobility may be accomplished as follows:

- a. movement upward within the same position (e.g., from entry-level to advanced-level)
- b. movement within the same position according to program area emphasis (e.g., generalist or specialist)
- c. movement upward to a higher position (e.g., from position #1 to position #2, from position #2 to position #3)

The position headings #1, #2, and #3 represent generic groupings of performance activities and do not necessarily reflect relative importance in providing environmental health services. For instance, activities performed at position #3 are not necessarily more essential for providing quality environmental health services than those performed at position #1. Rather, each position category contributes a unique but essential aspect to the total environmental health picture. The generic groupings of performance activities do, however, reflect the complexity and type of work being performed by practitioners in the various positions.

B. POSITION CLASSIFICATION

4. "Levels of Each Position"

Each position is divided into two levels: entry and advanced.

Entry-Level:

Those practitioners at the entry-level for a given position perform activities requiring minimum-basic competencies (knowledge and skills). Entry-level refers to the lowest rank within a position category. It is possible for a practitioner to remain at entry-level indefinitely, as long as the activities performed do not advance in complexity from those at the lowest rank with the position. Entry-level is not synonymous with "first-day on the job" or "right out of college." Rather, entry-level refers to the level of activities actually performed at the lowest rank within a position category.

Advanced-Level:

Those practitioners at the advanced level perform activities requiring more complex competencies than those at entry-level. These competencies (knowledge and skills) are acquired through advanced experience and/or education. Within a given position, the practitioner at the advanced-level may perform the same major responsibilities, but the degree of complexity and authority involved is increased. For instance, within position #1, both entry as well as advanced level practitioners may "collect samples for laboratory analysis"; however, the advanced practitioner would tend to perform more complicated sampling procedures than the entry-level practitioner, and would also exercise greater authority in making judgments regarding the sample collection and its implications.

For the purposes of this report, the Major Responsibilities listed for

entry and advanced levels are considered to be the same. The Role Delineation Model (Section C), which contains both Major and Specific Responsibilities, emphasizes the entry-level practitioner only.

B. POSITION CLASSIFICATION

5. "Types of Positions"

Types of each position indicated on the position classification diagram refer to the generalist and the specialist.

The Generalist:

The generalist practitioner devotes himself to the performance of a variety of related activities within more than one program area. The generalist practitioner:

- focuses on a broad arena in environmental health which encompasses more than one program area
- may have some area of great depth of expertise within one specific program area, but usually has expertise spread rather evenly, at an adequate but not great depth, across a number of program areas
- has limited responsibility in the arena of the environmental health specialist
- has limited expertise in the arena of the environmental health specialist

The Specialist:

The specialist practitioner devotes himself to the performance of a particular branch of activities within a given program area, thereby narrowing and intensifying expertise in that area. The specialist practitioner:

- focuses on a narrow arena in environmental health which emphasizes one specific program area
- has greater depth of expertise in that program area than does the generalist
- has little or no responsibility in the total area of the generalist's work
- has limited expertise in the broad areas of the generalist

As defined in this report, both generalist and specialist practitioners perform the same Major Responsibilities; however, these responsibilities are performed in relation to different program areas. While it is understood that specialist

practitioners may also intensify their focus of work within one particular responsibility or function, the above definition regarding program-area focus will be used for defining practitioners as either generalists or specialists in this report. The Role Delineation Model given in Section C emphasizes the "generalist" practitioner in the development of Specific Responsibilities.

B. POSITION CLASSIFICATION

6. "Functions of Positions"

Functions of positions refer to spheres of activities performed by the practitioner within a given position. Functions are given in this report as concise (one word) descriptions reflecting the major spheres of emphasis for practitioner activities within each position. They may be found to generally correlate with the statements of Major Responsibilities, although they are not intended to be as comprehensive or detailed.

Functions for environmental health practitioners as designated in the diagram are:

Position #1: Sampling, Testing, Inspection, Information

Position #2: Investigation, Consultation, Planning, Education

Position #3: Supervision, Administration, Planning, Enforcement

Functions may overlap from one position to another; i.e., a practitioner at position #2 may at times perform testing activities as described in position #1, or a practitioner at position #2 may at times exercise certain enforcement activities described in position #3, etc.

Functions for each position are considered to be the same for both entry and advanced level practitioners.

Summary of Project Work

Section C: Role Delineation Model

1. "Role Delineation: Terms and Concepts"
2. Preface to Role Delineation Model
3. Role Delineation Model:
Positions #1, #2, and #3

Summary of Project Work
Section C

ROLE DELINEATION MODEL

1. "Role Delineation: Terms and Concepts"

The Role Delineation Model given in this section has been developed with reference to three entry-level, generalist-type positions reflecting that career category within environmental health traditionally referred to as Sanitarian. Due to variations in job titles used from state to state, these positions are referred to as "position #1," "position #2," and "position #3," and are based on the Position Classification System described in Section B.

The Role Delineation Model contains two main parts for each position identified, "Major Responsibilities" and "Specific Responsibilities." The "Major Responsibilities" have been further divided into sections emphasizing both those that are "technical" and those that are "interpersonal."

Major Responsibilities:

Major Responsibilities refer to the broad area of performance executed by a practitioner. The following describe the characteristics of Major Responsibilities:

- a. expressed as performances
- b. all-encompassing
- c. include attributes

a.) Performances are activities carried out by the practitioner. To express a responsibility as a performance is to express the action involved. For instance, if the practitioner is responsible for the collection of samples and specimens, this would be expressed as a performance by stating: "Collects samples and specimens." The action word "collects" expresses the performance executed by the practitioner.

b.) All-encompassing refers to broad areas of performance or big groupings of activities. Major Responsibilities are stated so that a number of related and component activities are encompassed. For instance, the Major Responsibility, "Performs routine field tests," encompasses a number of related specific activities, such as "Prepares testing apparatus for operation" and "Conducts basic measurements and calculations."

c.) Attributes are emotional characteristics or qualities that reflect the practitioner's values and attitudes. Attributes are by nature "intangible," and therefore difficult to define or assess in an objective manner. Frequently, however, a given practitioner's attributes, as reflected in job performance, may make the crucial difference in his success or failure in providing quality environmental health services. This is particularly true in cases requiring effective interaction with persons contacted during the course of work; e.g., "interpersonal" activities as opposed to those of a strictly "technical" nature.

The Role Delineation Model has emphasized the importance of certain interpersonal attributes by dividing the Major Responsibilities into two sections: "Technical" and "Interpersonal." "Major Responsibilities-Technical" describe activities involving the manipulation of objects, ideas, resources, or information; for example, "Conducts environmental health investigations." "Major Responsibilities-Interpersonal" describe activities involving interchange and interaction among persons; for example, "Conducts liaison activities with other agencies and groups."

In actual practice, interpersonal responsibilities cannot be separated from technical responsibilities, for they are both essential components of practitioner proficiency and are performed in conjunction with one another. They are, nevertheless, separated in this report to emphasize the importance of each as Major Responsibilities for environmental health practitioners.

Specific Responsibilities

Specific Responsibilities are essential for the execution of each Major Responsibility. Specific Responsibilities have the following characteristics:

- a. expressed as performances
- b. include knowledge and skill competencies
- c. detailed sufficiently for communication purposes

a.) Performances, as stated previously, are activities carried out by the practitioner. For example:

Major Responsibility stated as a performance:

Collects samples or specimens for laboratory analysis.

Specific Responsibilities stated as performances:

Locates sampling site geographically.

Transports sample or specimen to laboratory.

Etc.

As shown in the example, action is emphasized ("locates," "transports,") in order to express the Specific Responsibility in terms of actual practitioner performances.

Since Specific Responsibilities reflect the essential components of a Major Responsibility, they include both interpersonal and technical activities. However, these two types of Specific Responsibilities have not been placed in separate sections. Rather, the Specific Responsibilities are listed in logical order (outline-style) to express how they relate to one another in executing the Major Responsibility.

b.) Knowledge and Skill Competencies describe the practitioner's abilities in performing his job proficiently, based upon his knowledge and skills. The Role Delineation Model does not provide a separate section on "knowledge and skills," but rather incorporates this aspect into

statements of Specific Responsibilities. Knowledge and skills are inherently stated in the descriptions of practitioner activities. For instance, in the Major Responsibility, "Collects samples or specimens for laboratory analysis," one of the Specific Responsibilities is stated as, "Utilizes the necessary equipment in conducting sampling procedures." This Specific Responsibility describes a skill competency: the practitioner must possess the ability to use sampling equipment. However, the skill is described as a performance activity and is, therefore, inherently stated in the Specific Responsibility. To repeat the knowledge or skill in a separate section would be redundant, since it is sufficiently communicated in the performance statement.

This Model is intended to clearly communicate the parameters and content of knowledge and skill competencies required for each of three entry-level, generalist positions given. However, while knowledge and skills are inherently stated in the Specific Responsibilities, no attempt has been made to designate educational or training requirements relating to those competencies. The practitioner who "collects samples and specimens for laboratory analysis" is described according to the activity he performs, not according to his level of training or experience. It is not the objective of this report to correlate years of experience and/or degree levels with any of the responsibilities listed. Practitioners are urged to identify with the activities listed in order to ascertain where they may fit within the model, rather than seek traditional job titles or educational/experience equivalents.

c.) Sufficient Detail describes a characteristic of Specific Responsibilities referring to their ultimate use as the basis for development of education programs and proficiency examinations. Each Major Responsibility

has been broken down into smaller units ("Specific Responsibilities") in order to clarify all aspects of the activity described. Also, the Specific Responsibilities have been developed outline-style to facilitate a logical order for the component activities listed.

The Model does not contain program area content in the Specific Responsibilities. While specific knowledge and skills may be based on the various environmental health program areas, there are also certain basic activities common to the field as a whole, regardless of program area. This project has attempted to portray the overall structure of the environmental health practice, for there is a unity and connectedness that transcends individual program areas. The Role Delineation Model, therefore, assembles the commonalities or basic thread underlying all environmental health programs. This method is considered to provide "sufficient detail" without listing volumes of disconnected facts from the various program areas.

A section entitled "Examples of Major Responsibilities" is located in the Appendix which illustrates how program area topics may be correlated with selected environmental health positions.

Section C: Role Delineation Model

2. PREFACE
TO
ROLE DELINEATION MODEL

The attached Role Delineation Model describes the Major and Specific Responsibilities for three entry-level, generalist-type positions as identified in the Position Classification (Section B).

Position #1 describes the practitioner who is primarily involved in testing and sampling, inspections, and public information activities, performed under the general supervision of advanced staff.

Position #2 describes the practitioner who is primarily involved in investigative, consultative, planning, and educational activities, performed under the general supervision of advanced staff.

Position #3 describes the practitioner who is primarily involved in supervisory, administrative, planning, and enforcement activities, under minimal supervision by advanced staff.

Practitioners at any one of the three positions may also, when appropriate, carry out activities listed for other positions described. Categories are grouped separately to facilitate presentation in a logical format; however, overlap in delineated responsibilities may exist to varying degrees from state to state.

IT IS NOT THE INTENT OF THIS PROJECT TO ASSIGN
JOB TITLES OR ESTABLISH EDUCATIONAL AND/OR EXPERIENCE
LEVELS FOR ENVIRONMENTAL HEALTH PRACTITIONERS.

IT IS THE INTENT OF THIS PROJECT TO IDENTIFY THE
ACTIVITIES THAT ARE ACTUALLY PERFORMED BY SELECTED
ENTRY-LEVEL PERSONNEL.

A ROLE DELINEATION MODEL
FOR
ENVIRONMENTAL HEALTH PRACTITIONERS

47 The practitioner performs field sampling and testing, routine inspections, and public information activities under the general supervision of advanced staff.

The Major and Specific Responsibilities for Position #1 are delineated as follows:

MAJOR RESPONSIBILITIES - (TECHNICAL)

- I. Collects samples and specimens for laboratory analysis

SPECIFIC RESPONSIBILITIES:

- A. Locates designated sampling site geographically
 1. Interprets maps, codes, graphs, and other geographical information
 2. Identifies designated sampling site
- B. Explains purpose of sample collection to concerned parties
 1. Describes objectives and methods for collecting sample or specimen
 2. Answers clearly and completely questions regarding sampling
- C. Carries out collection procedures for sample or specimen
 1. Identifies the sample or specimen to be taken
 2. Utilizes the necessary equipment in conducting sampling procedures
 3. Collects and transfers sample or specimen to container
- D. Obtains pertinent information regarding sample or specimen and designated site
 1. Labels all specimens and samples collected with name and location
 2. Observes unique or unusual conditions regarding sampling site or collected items
 3. Makes limited interpretations regarding the environmental health implications of observed situation
- E. Communicates findings to others, orally and in writing
 1. Discusses findings with concerned parties on-site
 2. Records pertinent information in writing for further evaluation
- F. Transports sample or specimen to laboratory
 1. Preserves and protects sample or specimen collected
 2. Arranges safe transportation of collected sample or specimen to laboratory

Major Responsibilities - (Technical), con'd.

Specific Responsibilities

II. Performs routine field tests

- A. Explains purpose of test to others
 - 1. Describes objectives and methods for performing test to concerned parties
 - 2. Answers pertinent questions completely and clearly
- B. Sets up testing equipment
 - 1. Prepares testing apparatus for operation
 - 2. Mixes stock solutions for testing
- C. Implements testing procedures
 - 1. Performs testing activities in proper sequence
 - 2. Conducts basic measurements and calculations
- D. Reports field testing results
 - 1. Logs observations, calculations, and test readings
 - 2. Records specific conditions that influence test
 - 3. Makes limited interpretations regarding environmental health implications of conducted test
 - 4. Communicates findings to appropriate parties
- E. Maintains operational capability of test equipment
 - 1. Conducts routine maintenance checks of test equipment
 - 2. Makes necessary routine repairs

III. Conducts routine environmental health inspections

- A. Establishes cooperative relations with people contacted
 - 1. Makes proper introduction to parties involved
 - 2. Explains objectives of inspection
 - 3. Answers pertinent questions completely and clearly
- B. Conducts routine inspectional procedures
 - 1. Observes and records general conditions present
 - 2. Identifies deficiencies and violations
 - 3. Conducts basic tests and calculations
 - 4. Interviews persons on-site for additional information

49 Major Responsibilities - (Technical)

Conducts routine environmental health inspections (Cont'd. from p. 2)

Specific Responsibilities

- C. Evaluates inspection findings according to established procedures
 - 1. Makes limited interpretations regarding environmental health implications of situation observed
 - 2. Identifies environmental health standards, codes, and regulations that are applicable
 - 3. Requests technical expertise for special problems encountered
- D. Submits findings and recommendations to concerned parties
 - 1. Explains violations, regulations, or other problems to involved parties
 - 2. Requests compliance or corrective measures to be taken
 - 3. Compiles and submits detailed report of findings and recommendations

MAJOR RESPONSIBILITIES - (INTERPERSONAL)

IV. Communicates environmental health information to others

SPECIFIC RESPONSIBILITIES

- A. Distributes educational pamphlets, brochures, and booklets to the public
 - 1. Locates resources for obtaining educational materials
 - 2. Procures requested information items
- B. Utilizes written communications to convey information
 - 1. Completes checklist and survey forms
 - 2. Writes reports in an accurate, coherent style
- C. Utilizes oral communications in dealing with others
 - 1. Addresses people contacted in a business-like manner
 - 2. Explains environmental health regulations and codes in language understandable to others
 - 3. Suggests corrective actions to violators in a factual manner
 - 4. Uses the phone correctly in handling requests, complaints, and messages

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Major Responsibilities - (Interpersonal)

Communicates environmental health information to others (Cont'd. from p. 3)

- V. Works productively with other staff members

- VI. Represents department favorably to the public

Specific Responsibilities

- D. Interviews persons to obtain information about environmental health concerns
1. Establishes a feeling of mutual cooperation and trust
 2. Utilizes proper questioning techniques
 3. Listens to and interprets respondent's information with awareness and sensitivity
- A. Cooperates with other staff members in conducting work activities
1. Sets own objectives in conjunction with fellow employees
 2. Provides suggestions and support for fellow staff in course of work
 3. Accepts constructive criticism in an effort to improve job effectiveness
- B. Participates in departmental staff functions
1. Attends departmental meetings and workshops
 2. Shares ideas in discussions on departmental problems
- A. Demonstrates a sensitivity to people and their needs
1. Manifests a desire to help and not punish; advise and not order
 2. Deals fairly with all societal elements, regardless of race, color, creed, sex, or age
- B. Keeps public informed of department efforts to meet local problems
1. Explains the need for environmental health improvements within the community
 2. Adequately describes the department's role in meeting stated problems

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The practitioner performs investigative, consultative, planning and educational activities under the general supervision of advanced staff.

The Major and Specific Responsibilities for Position #2 are delineated as follows:

MAJOR RESPONSIBILITIES - (TECHNICAL):

- I. Plans and conducts environmental health investigations

SPECIFIC RESPONSIBILITIES:

- A. Determines nature and scope of environmental health problem to be investigated
 1. Collects and evaluates background information
 2. Delineates causal relationships
- B. Plans environmental health field investigations
 1. Formulates procedural methodology for conducting investigation
 2. Coordinates investigative efforts with other agencies
- C. Implements environmental health investigations
 1. Assigns or conducts appropriate inspections and surveys
 2. Maintains open communications with those involved in investigation
- D. Makes comprehensive analysis of problem situation
 1. Analyzes and correlates background information with on-site data
 2. Interprets investigative findings with regard to applicable statutes, codes, and regulations
- E. Implements enforcement proceedings
 1. Orders corrective measures to be taken
 2. Plans for follow-up inspections to assure compliance
 3. Recommends further legal action against violators, if necessary

ROLE DELINEATION MODEL
Position #2, cont'd.

(Entry - Level)

(Generalist)

Major Responsibilities - (Technical), cont'd.

- 52 II. Participates in planning and development
environmental health program activities

- III. Reviews and evaluates documents, licensure
applications, and planning specifications

Specific Responsibilities

- A. Determines the nature and dimensions of environmental health problems in community
 - 1. Defines, quantifies, and prioritizes environmental health problems within area
 - 2. Evaluates adequacy of current environmental programs to meet needs
- B. Assists in the development of proposals for program activities
 - 1. Incorporates the goals and mission of agency into proposed program
 - 2. Devises program methods and procedures to meet stated needs
 - 3. Identifies tools and resources needed for program implementation
 - 4. Sets measureable objectives, for both program and self-assessment
- C. Submits program proposal for implementation
 - 1. Compiles reports and documents substantiating needs and proposed methodology
 - 2. Recommends evaluation methods to assure effective progress of program activities
 - 3. Explains and promotes implementation of proposed program activities
- A. Examines documents, licensure applications, and planning specifications
 - 1. Checks items for completeness, accuracy, and style
 - 2. Determines degree of compliance with statutes, standards, and regulations
- B. Compiles and submits opinions and final recommendations.
 - 1. Suggests modifications and revisions needed
 - 2. Documents recommendations with supportive data
 - 3. Submits completed evaluation and recommendations in written form.

ROLE DELINEATION MODEL
Position #2, cont'd.

(Entry - Level)

(Generalist)

Major Responsibilities - (Technical), cont'd.

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- IV. Provides consultative services relating to environmental health problems

Specific Responsibilities

- A. Locates and utilizes information resources
 - 1. Compiles and reviews reports, literature, and statistical data
 - 2. Obtains additional information from special resource individuals
- B. Evaluates information compiled with reference to problem subject
 - 1. Interprets and analyzes findings in relation to problem subject
 - 2. Formulates methods and means for solving problem
- C. Proposes conclusions and recommendations to consulting party, orally and in writing
 - 1. Presents overview reflecting total scope of problem to consultee
 - 2. Substantiates conclusions given with relevant documentation
 - 3. Provides feasible alternatives and innovative methods for dealing with problem
- D. Motivates decision-making process
 - 1. Communicates ideas and information with confidence
 - 2. Encourages implementation of proposed recommendations
 - 3. Obtains results without causing anxiety

MAJOR RESPONSIBILITIES - INTERPERSONAL

- 54 V. Conducts educational activities in connection with public information and staff training

- VI. Conducts liaison activities with other agencies and groups

SPECIFIC RESPONSIBILITIES

- A. Provides educational assistance to subordinate staff
1. Helps instruct staff members in performance of certain job activities
 2. Assists in the planning of workshops and conferences within area of expertise
- B. Provides information to the public on environmental health matters
1. Participates in public discussions on environmental health concerns
 2. Gives lectures to concerned people
 3. Helps prepare information for news media
- C. Plans and implements educational activities
1. Coordinates learning objectives with educational methodology
 2. Translates technical knowledge to audience level
 3. Utilizes audio-visual materials to facilitate presentations
- A. Facilitates communications with other agencies or groups
1. Demonstrates leadership abilities in working with others
 2. Motivates and encourages others to work for needed changes
- B. Exchanges information with other agencies, industries, or community representatives
1. Shares ideas on current methods and techniques for handling problems
 2. Collaborates with others in rendering needed services

The practitioner performs supervisory, administrative, planning and enforcement activities under minimal supervision by advanced staff.

The Major and Specific Responsibilities for Position #3 are delineated as follows:

MAJOR RESPONSIBILITIES - (TECHNICAL)

I. Plans and directs program activities

II. Initiates enforcement proceedings in connection with environmental health violations

SPECIFIC RESPONSIBILITIES

- A. Develops goals, mission, and objectives for agency
 - 1. Determines health status and needs of community
 - 2. Reviews staff recommendations regarding program adequacy
 - 3. Considers agency and community limitations on tools and resources needed for program
- B. Directs implementation of program activities
 - 1. Develops and allocates resources, including manpower, finances, time, equipment, and facilities
 - 2. Establishes policy and procedures for program activities
 - 3. Delegates responsibilities for program implementation
 - 4. Coordinates activities with agency goals and objectives
- C. Evaluates program on a periodic basis
 - 1. Assesses program effectiveness and efficiency
 - 2. Holds staff meetings to discuss program evaluation
 - 3. Re-directs program efforts and activities as necessary
- A. Determines agency action to be taken against violating source
 - 1. Reviews staff reports, recommendations, and actions
 - 2. Determines applicability of statutes, codes, and regulations
 - 3. Authorizes issuance of citations or directives for compliance

Major Responsibilities - (Technical)

Specific Responsibilities

(Initiates enforcement proceedings
in connection with environmental health
violations), (Cont'd.)

III. Approves environmental health permits,
licenses, and contracts

IV. Evaluates and recommends legislation

B. Participates in legal action against violators

1. Schedules and conducts hearings
2. Testifies as an expert witness in court
3. Reviews and evaluates prepared drafts of legal cases

A. Authorizes issuance of permits and licenses

1. Reviews staff recommendations of application or submitted specifications
2. Determines compliance according to regulations, standards, and codes
3. Grants issuance of permit or license if approval is appropriate

B. Negotiates contracts and agreements with governmental or industrial representatives

1. Reviews and evaluates governmental or industrial contract proposals.
2. Authorizes bids and proposals for contracted services
3. Submits required reports and documents to governmental authorities

A. Reviews and analyzes legislative data

1. Determines needs of community and objectives of agency with reference to legislative acts
2. Studies and interprets previously proposed or enacted legislation

B. Submits recommendations for legislative action

1. Prepares suggestions in the form of amendment drafts
2. Supports position taken on issues with relevant documentation

ROLE DELINEATION MODEL
Position #3, cont'd.

(Entry - Level)

(Generalist)

MAJOR RESPONSIBILITIES - (INTERPERSONAL)

57 V. Supervises staff activities

VI. Serves as official representative of
agency to others

SPECIFIC RESPONSIBILITIES

- A. Selects qualified personnel
 - 1. Interviews applicants for position openings
 - 2. Complies with equal opportunity employment guidelines
 - 3. Projects manpower staffing needs
- B. Directs and supervises staff training activities
 - 1. Directs implementation of on-job training programs
 - 2. Provides continuing education programs for staff
- C. Provides evaluative consultations with staff members
 - 1. Discusses positive and negative aspects of job effectiveness with staff members
 - 2. Provides career guidance to employees
 - 3. Utilizes competency assurance measures
 - 4. Takes appropriate disciplinary action
- D. Motivates staff members to improve work
 - 1. Encourages practitioners to utilize self-assessment techniques
 - 2. Encourages staff suggestions, constructive criticism, and creative innovations
 - 3. Provides positive reinforcement for jobs well done
- A. Participates in meetings and conferences held with business leaders, unions, civic groups, professional groups, or others
 - 1. Explains agency's official position on environmental health concerns
 - 2. Provides current information to others on relevant topics
 - 3. Motivates decision-making process through leadership and human relations techniques

Major Responsibilities - (Interpersonal)

(Serves as official representative of
agency to others), (Cont'd.)

VII. Conducts meetings and conferences

Specific Responsibilities

- B. Handles highly-sensitive complaints and inquiries
 - 1. Discusses sensitive situation with concerned party in a diplomatic and empathetic manner
 - 2. Explains technical information concerning problem or violation fully and clearly
 - 3. Suggests viable alternative or appropriate action to be taken to resolve matter
- C. Maintains liaison with news media
 - 1. Writes or edits news releases
 - 2. Provides factual information to news media
- A. Directs discussion sessions
 - 1. Maintains order of meetings or conferences
 - 2. Assures proper scheduling in accordance with agenda
- B. Facilitates group interaction
 - 1. Motivates inter-communication between parties
 - 2. Utilizes group-dynamics techniques

ATTACHMENT 1.

RECOMMENDATIONS FOR THE DEVELOPMENT OF
GUIDELINES FOR CURRICULUM DESIGN

The Role Delineation Model includes detailed statements of responsibilities appropriate for three entry-level practitioner positions in environmental health. These responsibility statements are competency-based and emphasize activities actually performed by practitioners on-the-job. The Role Delineation Model, therefore, provides an excellent framework for the development of relevant curriculum design in environmental health.

The following include general recommendations for the development of curriculum guidelines based on the Role Delineation Model:

1. Curriculum design in environmental health should be based on well-defined, relevant instructional objectives. These objectives should relate to activities the student of environmental health will be expected to perform when employed. Objectives should be stated in such a way that actual attainment of that objective can be adequately measured. For instance, an objective stated as, "The student will understand about environmental health field testing," does not specifically convey what the student should be able to do as a result of the learning process. Performance objectives, based on practitioner activities as illustrated in the Model, should provide the framework for a more effective curriculum design.

2. Curriculum design in environmental health should utilize the concept of criterion-referenced "pre" and "post" testing. By testing the student, both before and after the instructional sequence, the actual amount of learning can be adequately measured. The tests given should be referenced to well-defined, relevant instructional objectives. If a student is able to meet all instruc-

tional objectives prior to taking the course of work designed to teach them, then the instructional sequence may not be necessary. This can be determined through the score attained by the student on the pre-test. If, however, a student fails to meet the defined objectives, indicated by an unacceptable score on the pre-test, then the instructional sequence may be appropriate. Concluding the course of work or instructional sequence, a post-test will indicate whether the instructional objectives have actually been met by the student as a result of the educational process. If he still fails to meet those objectives, indicated by an unsatisfactory post-test score, then he may need additional instruction. However, such a post-test failure may also indicate that the instructional sequence itself may not be adequate for preparing the student to meet the pre-defined objectives.

3. Curriculum design in environmental health should incorporate the Role Delineation Model as a useful tool in providing for all relevant aspects of practitioner proficiency. Many instructional programs in environmental health tend to focus on the technical aspects of the profession to the exclusion of those involving effective interaction with people. The Model emphasizes interpersonal as well as technical competencies in practitioner proficiency, and the "interpersonal" domain is an area requiring much attention in curriculum design.

Various concepts relating to planning, management, and environmental health problem-solving should also be more greatly emphasized in curriculum design.

4. Continued competence, or continuing education, should also be designed in conjunction with the concepts emphasized in the Role Delineation Model. In designing curriculum for continuing education programs, the same recommendations apply as listed in #1 - #3 above. Continuing education programs should provide the student with more than accumulation of course credit hours. The student should be able to measure what he has actually learned as a result of the continuing education experience. This can be accomplished through use of relevant, well-defined instructional objectives and pre/post tests that are directly referenced to those objectives. The Role Delineation Model provides a useful framework for the development of measures to more effectively assess practitioner performance on a continuing basis.

ATTACHMENT 2.

RECOMMENDATIONS REGARDING THE
CREDENTIALING OF ENVIRONMENTAL HEALTH PERSONNEL

The purpose of credentialing environmental health personnel is to serve public interest through assuring practitioner competency in the delivery of quality environmental health services. In order to best assure the public of practitioner competency, effective assessment measures should be utilized in evaluating personnel. The Role Delineation Model includes detailed performance statements covering the knowledge, skills, and attributes necessary for proficiency at three entry-level, generalist-type positions. The Model, therefore, provides a competency-based framework on which effective assessment measures for use as part of the credentialing process can be developed.

The various methods of assessing practitioner competency based on the Role Delineation Model include:

1. Practitioner Appraisal Guidelines - whereby the practitioner can be appraised either by himself (as a "self-assessment" technique), by his employer, or by his peers. His strengths and weaknesses in various areas can be pinpointed based on a "checklist" format derived from the Role Delineation Model.

2. Criterion-Referenced Proficiency Examinations - in which test questions are referenced directly to job activities relevant to practitioner competency. Such examinations could be developed on the basis of the Role Delineation Model, since the model describes job activities through statements of Major and Specific Responsibilities.

3. Observation Techniques - which utilize methods for assessing practitioner performance on-the-job. Objective observers record on-job performances in accordance with a checklist of specified responsibilities, based on the Role Delineation Model.

4. Computer-Assisted Techniques - which utilize computers in assessing (or scoring) the practitioner's competencies. Simulated situations requiring problem-solving are given to the practitioner in order to assess his proficiency.

The above listing includes only a few of the types of assessment measures that can be developed from the Role Delineation Model. Some of these techniques are still in the developmental stages, and much is still needed in the way of experimentation for the various methods proposed. Nevertheless, such assessment measures do reflect a great deal of progress in the sophistication of competency assurance for use in credentialing practitioners.

Current credentialing methods for environmental health personnel attempt to assure practitioner competency through the registration process. Presently, there are 35 states in this country that have Sanitarian Registration Acts. These Acts designate requirements for registration that may include such items as (1) educational level (e.g., baccalaureate degree); (2) years of experience (e.g., on-job training); and (3) an acceptable score received on a standardized test (e.g., "norm-referenced" test in which scores are compared and an average acceptable score computed).

It is not the intent to recommend, as a result of this project, that registration requirements currently in existence be abandoned. However, each requirement currently in use should be regarded as only one aspect of competency assurance for practitioners. The study suggests that, in addition to current

requirements, more effective assessment measures could be developed based on the Role Delineation Model. The Model attempts to clearly define what activities the competent environmental health practitioner performs on-the-job, rather than designating traditional educational or experience requirements. It can, therefore, serve as the developmental framework from which to pursue more effective methods for evaluating the competency of environmental health practitioners across the United States.

ATTACHMENT 3.

AN EVALUATION OF THE
ROLE DELINEATION STUDY
BY THE PROJECT DIRECTORMethodology: Pros and Cons

Research methodology for the Role Delineation Study utilized two separate but concurrent processes: committee action and project staff research.

Committee action served as a useful process utilizing the advice and knowledge of environmental health experts through structured group techniques. The disadvantages of committee action were high expenses (i.e., travel, per diem, and honorarium) and the difficulty in reaching consensus with varying interests and opinions of committee members. Recommendations for future committee action procedures would include: (a) reduction in committee size (e.g., 5 - 8 members only) and (b) use of highly structured group control techniques (e.g., "nominal group technique," "Q-Sort," "controlled experience," etc.).

Project staff research served as a useful process in analyzing and evaluating all data sources, including previous reports, studies, and documents. The major limitation of this process was the restriction regarding use of only secondary data (e.g., previously published sources). Very little secondary data was available that was pertinent to the role delineation of environmental health practitioners. It is recommended that future studies incorporate appropriate survey methodology to obtain information directly from the field.

Problems and Solutions

The major problems encountered during the role delineation study were as follows:

a.) Job Titles. The use of certain job titles were particularly "inflammatory" to some committee members as well as to practitioners in the field. There-

fore, consensus could not be reached on the use of standardized practitioner job titles. To resolve the situation, the project staff identified practitioner positions as #1, #2, and #3.

b.) Work Experience and Education Requirements. There was a tendency to establish educational and/or experience requirements as a basic criteria for practitioner proficiency, since these are traditional standards for credentialing or licensure of manpower. However, the project staff was charged with describing practitioner activities as the basic criteria for proficiency, and consequently did not list educational or experience requirements correlated with identified positions.

c.) Program Area Coverage. The field of environmental health includes numerous program areas, with fourteen such areas identified in this Study. To provide comprehensive coverage of each would entail the enumeration of volumes of program-specific tasks. For this reason, the Role Delineation Model is composed of generalized performance statements that cut across all program areas. In this manner, the commonalities of all program areas are emphasized, rather than the specific differences between each.

Significance of the Role Delineation Study

The Role Delineation Study is significant in that it provides a clear description of the practice of environmental health. This description, contained in the Role Delineation Model, provides a flexible framework for use in manpower development and evaluation. The Model can be effectively implemented by association members and state officers, environmental health educators, and decision-makers at all levels of government and private industry.

The project staff recommends that immediate steps be taken to put the Role Delineation Model into effective operation. This should include measures to inform and educate involved individuals as to the potential use of the Model and its significance for the field of environmental health. The project staff also recommends the initiation of verification procedures for the project results, whereby the Model may be evaluated and modified to improve its accuracy and usefulness. The project staff further recommends the commencement of development for curriculum design and proficiency testing based on the Role Delineation Model, as described in Attachments 1 and 2 (pages 59 - 64).

In summary, the description of the practice of environmental health provided by the Role Delineation Model is significant in that it serves as a developmental tool for use in manpower development and assessment. Because the product has immense potential, the Project Director encourages immediate implementation of the Model. To this end, the National Environmental Health Association is most willing to discuss and work with those agencies, industries, or individuals interested in adapting the Model for their use.

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Below are listed examples of Major Responsibilities for entry-level, generalist positions #1 and #2. These examples illustrate how the Major Responsibilities may be correlated with a given program area. Only technical Major Responsibilities have been included.

POSITION #1:Major ResponsibilityExamples of Major ResponsibilitiesProgram Area

I. Collects samples and specimens for laboratory analysis

Collects samples of effluent discharged into waterways or on land

Water Pollution Control

Collects water samples from swimming pools or bathing beaches

Recreation Areas & Waters

Collects insect specimens for identification

Vector Control

Collects water samples from water supply sources

Water Supply

Collects samples of food being produced, processed, stored, or served

Food Protection

Collects samples of leachate

Solid Waste Mgmt.

Collects ambient air samples

Air Pollution Control

II. Performs routine field tests

Conducts pH, residual chlorine, or clarity tests to determine quality of swimming pool water

Recreation Areas & Waters

Conducts tests to determine proper sanitation of equipment used in food service operations

Food Protection

Conducts tests to determine ambient air quality, such as carbon monoxide levels

Air Pollution Control

Conducts percolation tests for soil suitability in subsurface sewage disposal

Water Pollution Control

Conducts noise monitoring tests

Noise Control

Conducts residual chlorine tests to determine disinfection of water supplies

Water Supply

Major ResponsibilitiesExamples of Major ResponsibilitiesProgram Area

78
III. Conducts routine environmental health inspections

Inspects food establishments, facilities and vehicles for compliance with regulations and codes

Food Protection

Conducts inspections of housing for compliance with codes and statutes pertaining to environmental health and safety

Housing (Shelter)

Inspects swimming facilities and area for compliance with regulations and codes

Recreation Areas & Waters

Performs inspection for determining breeding sites and harborages for vector population

Vector Control

POSITION #2

I. Plans and conducts environmental health investigations

Conducts investigations in assessing outbreaks of food-borne illness

Food Protection

Conducts assessments of the health effects of air pollution within a given community

Air Pollution Control

Plans and conducts investigations to assess the suitability of installation of subsurface sewage systems

Water Pollution Control

Plans and conducts investigations of vector-borne disease in the community

Vector Control

II. Participates in planning and development of environmental health program activities

Helps other agencies develop land use programs

Land Use

Provides technical information for vector surveillance activities

Vector Control

Assists in developing environmental health policies in school health programs

Institutional Env. Control

Appendix, cont'd.

Major Responsibilities

Examples of Major Responsibilities

Program Area

(Participates in planning and developing of environmental health program activities, cont'd.)

Participates in program plans involving the withdrawal of hazardous products that are improperly labeled or packaged

Hazardous Substance & Product Control

III. Reviews and evaluates documents, licensure applications, and planning specifications

Reviews and evaluates plans for construction of private sewage disposal

Water Pollution Control

Participates in review of environmental impact reports for subdivisions

Land Use

Reviews applications for licensing of schools, nursing homes, or hospitals

Institutional Env. Control

Evaluates and submits recommendations on licensure applications for food processing plants

Food Protection

IV. Provides consultative services relating to environmental health problems

Consults with officials of health or environmental protection agencies on problems dealing with stream pollution and sewage treatment

Water Pollution

Serves as an advising consultant in environmental problems of the food industry

Food Protection

Serves as consultant relative to the acceptability of certain pesticides for use in vector control

Vector Control

Consults with contractors and public works agencies regarding water supply extensions

Water Supply

APPENDIX B

WEIGHTING OF MAJOR AND SPECIFIC RESPONSIBILITIES

In evaluating the relevance and usefulness of the Role Delineation Model, it is necessary to weight the Major and Specific Responsibilities in terms of their importance in provision of quality environmental health services. The procedure used for weighting of responsibilities involved a weighting checklist completed by two separate groups of environmental health practitioners:

- 1.) Expert Committee Members, consisting of 15 Steering and Advisory Committee members from the Manpower Study
- 2.) Entry-Level Sample Group, consisting of 20 participants in a regional, entry-level environmental health workshop conducted at Colorado State University in Fort Collins, Colorado in January 1977, and representing practitioners from Wyoming, North Dakota, South Dakota, Montana, Utah, and Colorado

Directions for Completing the Checklist

Both groups of practitioners were asked to provide weighting for the Major and Specific Responsibilities by defining importance in accordance with the following factors:

- (a) If the activity were not performed adequately, would malfunctions or negative health impacts result?
- (b) Is the activity performed frequently? If not, would it still remain an essential component in providing quality services?
- (c) In developing an examination for entry-level practitioners, would this be an important area to stress?
- (d) In designing environmental health curriculum, would this be an important aspect to include?

Major Responsibilities were weighted in descending priority order, with each item being assigned a separate number ranking. Specific Responsibilities were weighted on a scale from 4 to 1 to indicate relative importance to each other as component activities in performing the Major Responsibility. A rank of 4 indicates the highest degree of importance for the activity in carrying out the Major Responsi-

bility; a rank of 1 indicates least degree. Ranks of 2 or 3 indicate relative levels between 1 and 4 as selected by the respondent.

Tabulation of the Results

Rankings of the Major Responsibilities by each group were obtained by tabulating the total point worth of each item as given by all respondents in that group. In this way, the highest point worth was assigned high rank, and the lowest point worth was assigned low rank, etc.

Rankings of the Specific Responsibilities by each group were obtained by tabulating the number of responses given to each weight category (4, 3, 2, or 1) for each item. These totals were then converted to percentages based on the number of respondents in each group (15 in the expert committee and 20 in the entry-level sample group).

Interpretation of the Results

The results of weighting of Major and Specific Responsibilities should not be viewed as a statistical verification for the results of this study. The results of the weighting procedure give the reader an opportunity to see how a sampled portion of practitioners views the relative importance of various activities in the delivery of quality environmental health services.

It is important to emphasize that the weights given to the various items in the checklist contain a certain amount of bias reflecting the differing categories of experience, age, education, type of position, and geographical location of the checklist respondents. These variants have not been specifically designated; only the differentiation between "expert" and "entry-level" is given for the purposes of general interpretation in this report. Furthermore, weights given to the various items by respondents may also have been influenced by varying interpretations of the content and grammatical style of the items, as well as problems in determining

what should exist in the field as opposed to what actually does exist.

Nevertheless, certain trends in the results of the weighting may be considered significant. In both groups, for instance, the Major Responsibility, "Conducts routine environmental health inspections," is ranked highest in importance for the entry-level practitioner in Position #1. Similarly, the Major Responsibility, "Plans and conducts environmental health investigations," is ranked highest in importance at Position #2 by both groups. Other rankings fall close to agreement in comparison between the two groups, for Major as well as Specific Responsibilities.

Weighting of Major Responsibilities
by Entry-Level Sample Group

Environmental Health - Entry-Level
Generalist

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Position Classification #1: Total of Major Responsibilities = 6; high rank 6,
low = 1

	Points:	Rank #
Collects samples and specimens for laboratory analysis	(62)	3
Performs routine field tests	(61)	2
Conducts routine environmental health inspections	(94)	6
Communicates environmental health information to others	(85)	5
Represents department favorably to others	(56)	1
Works productively with other staff members	(63)	4

Position Classification #2: Total of Major Responsibilities = 6; high rank 6,
low = 1

		Rank #
Plans and conducts environmental health investigations	(98)	6
Participates in planning and development of environmental health program activities	(87)	5
Provides consultative services relating to environmental health problems	(74)	4
Conducts educational activities in connection with public information and staff training	(68)	3
Conducts liaison activities with other agencies and groups	(33)	1
Reviews and evaluates documents, licensure applications, and planning specifications	(59)	2

Position Classification #3: Total of Major Responsibilities = 7; high rank 7,
low = 1

		Rank #
Plans and directs program activities	(106)	6
Initiates enforcement proceedings in connection with environmental health violations	(108)	7
Approves environmental health permits, licenses, and applications	(58)	2
Evaluates and recommends legislation	(61)	3
Supervises staff activities	(73)	4
Serves as official representative of agency to others	(93)	5
Conducts meetings and conferences	(57)	1

WEIGHTING OF SPECIFIC RESPONSIBILITIES

By Entry-Level Sample Group

Practitioner Position #1

Entry-Level/Generalist

Major Responsibility I. Collects samples and specimens for laboratory analysis.Percentage (%):
(total 20 responses)

Specific Responsibilities:

	Weighting: 4 3 2 1			
1. Interprets maps, codes, graphs, and other geographical information.	20	35	20	25
2. Identifies designated sampling site.	40	30	25	05
3. Describes objectives and methods for collecting sample or specimen	40	35	25	0
4. Answers clearly and completely questions regarding sampling	60	40	0	0
5. Identifies the sample or specimen to be taken.	80	10	10	0
6. Utilizes the necessary equipment in conducting sampling procedures.	65	25	05	05
7. Collects and transfers sample or specimen to container	70	30	0	0
8. Labels all specimens and samples collected with name and location.	75	25	0	0
9. Observes unique or unusual conditions regarding sampling site or collected item.	55	40	05	0
10. Makes limited interpretations regarding the environmental health implications of observed situation.	20	55	20	05
11. Discusses findings with concerned parties on-site.	20	30	40	10
12. Records pertinent information in writing for further evaluation	75	20	05	0
13. Preserves and protects sample or specimen collected	80	15	05	0
14. Arranges safe transportation of collected sample or specimen to laboratory	85	05	10	0

Major Responsibility II. Performs routine field tests.

Specific Responsibilities:

	4	3	2	1
1. Describes objectives and methods for performing test to concerned parties.	40	45	10	05
2. Answers pertinent questions completely and clearly.	60	35	05	0
3. Prepares testing apparatus for operation.	45	30	20	05
4. Mixes stock solutions for testing.	30	25	20	20
5. Performs testing activities in proper sequence.	85	10	05	0
6. Conducts basic measurements and calculations.	60	35	05	0

Practitioner Position #1, cont'd.

Specific Responsibilities:

Percentage (%):
(total 20 responses)

	Weighting: 4 3 2 1			
7. Logs observations, calculations, and test readings.	55	30	15	0
8. Records specific conditions that influence test.	55	30	15	0
9. Makes limited interpretations regarding environmental health implications of test.	25	55	15	05
10. Communicates findings to appropriate parties.	70	15	10	05
11. Conducts routine maintenance checks of test equipment.	40	20	30	10
12. Makes necessary routine repairs.	25	35	35	05

Major Responsibility III. Conducts routine environmental health inspections.

Specific Responsibilities:	4	3	2	1
1. Makes proper introduction to parties involved.	45	40	05	10
2. Explains objectives of inspection.	35	50	15	0
3. Answers pertinent questions completely and clearly.	70	25	05	0
4. Observes and records general conditions present.	60	35	05	0
5. Identifies deficiencies and violations.	85	10	05	0
6. Conducts basic tests and calculations.	45	40	15	0
7. Interviews persons on-site for additional information.	55	30	10	05
8. Makes limited interpretations regarding environmental health implications of situation observed.	55	35	10	0
9. Identifies environmental health standards, codes, and regulations that are applicable.	75	20	05	0
10. Requests technical expertise for special problems encountered.	75	20	05	0
11. Explains violations, regulations, or other problems to involved parties.	90	05	05	0
12. Requests compliance or corrective measures to be taken.	90	05	05	0
13. Compiles and submits detailed report of findings and recommendations.	55	40	05	0

Practitioner Position #1, cont'd.

Major Responsibility IV: Communicates environmental health information to others.Percentage (%):
(total 20 responses)

Weighting: 4 3 2 1

Specific Responsibilities:

1. Locates resources for obtaining educational materials.	15	60	20	05
2. Procures requested information items.	40	45	10	05
3. Completes checklist and survey forms.	20	40	30	10
4. Writes reports in an accurate, coherent style.	60	35	05	0
5. Addresses people contacted in a business-like manner.	65	25	10	0
6. Explains environmental health regulations and codes in language understandable to others.	100	0	0	0
7. Suggests corrective actions to violators in a factual manner.	60	40	0	0
8. Uses the phone correctly in handling requests, complaints, and messages.	55	40	05	0
9. Establishes a feeling of mutual cooperation and trust.	70	20	10	0
10. Utilizes proper questioning techniques.	40	50	10	0
11. Listens to and interprets respondent's information with awareness and sensitivity.	60	35	05	0

Major Responsibility V: Works productively with other staff members.Specific Responsibilities:

4 3 2 1

1. Sets own objectives in conjunction with fellow employees.	55	30	10	05
2. Provides suggestions and support for fellow staff in course of work.	60	35	0	05
3. Accepts constructive criticism in an effort to improve job effectiveness.	85	15	0	0
4. Attends departmental meetings and workshops.	60	35	05	0
5. Shares ideas in discussions on departmental problems.	65	25	05	0

Major Responsibility VI: Represents department favorably to the public.Specific Responsibilities:

4 3 2 1

1. Manifests a desire to help and not punish; advise and not order.	85	10	05	0
2. Deals fairly with all societal elements, regardless of race, color, creed, sex, or age.	85	15	0	0
3. Explains the need for environmental health improvements within the community.	75	25	0	0
4. Adequately describes the department's role in meeting stated problems.	70	25	05	0

Practitioner Position #2

Entry-Level/Generalist

Major Responsibility I. Plans and conducts environmental health investigations.Percentage (%):
(total 20 responses)

Specific Responsibilities:	Weighting:	4	3	2	1
1. Collects and evaluates background information.		55	35	10	0
2. Delineates causal relationships.		25	55	15	05
3. Formulates procedural methodology for conducting investigation.		45	30	15	10
4. Coordinates investigative efforts with other agencies.		45	30	20	05
5. Assigns or conducts appropriate inspections and surveys.		55	35	10	0
6. Maintains open communications with those involved in investigation.		80	20	0	0
7. Analyzes and correlates background information with on-site data.		75	20	05	0
8. Interprets investigative findings with regard to applicable statutes, codes, and regulations.		40	25	10	05
9. Orders corrective measures to be taken.		75	15	05	05
10. Plans for follow-up inspections to assure compliance.		90	10	0	0
11. Recommends further legal action against violators, if necessary.		55	40	05	0

Major Responsibility II. Participates in planning and development of environmental health program activities.

Specific Responsibilities:	4	3	2	1
1. Defines, quantifies, and prioritizes environmental health problems within area.	75	15	10	0
2. Evaluates adequacy of current environmental programs to meet needs.	50	45	05	0
3. Incorporates the goals and mission of agency into proposed program.	50	45	05	0
4. Devises program methods and procedures to meet stated needs.	60	30	10	0
5. Identifies tools and resources needed for program implementation.	45	45	10	0
6. Sets measureable objectives, for both program and self-assessment.	30	60	10	0
7. Compiles reports and documents substantiating needs and proposed methodology.	40	40	15	05
8. Recommends evaluation methods to assure effective progress of program activities.	35	40	20	05
9. Explains and promotes implementation of proposed program activities.	45	40	10	05

Major Responsibility III: Reviews and evaluates documents, licensure applications, and planning specifications.

Specific Responsibilities:

Percentage (%):
(total 20 responses)
Weighting: 4 3 2 1

1. Checks items for completeness, accuracy, and style.	60	25	15	0
2. Determines degree of compliance with statutes, standards, and regulations.	60	40	0	0
3. Suggests modifications and revisions needed.	70	25	05	0
4. Documents recommendations with supportive data.	55	40	05	0
5. Submits completed evaluation and recommendations in written form.	60	30	10	0

Major Responsibility IV: Provides consultative services relating to environmental health problems.

Specific Responsibilities:

4 3 2 1

1. Compiles and reviews reports, literature, and statistical data.	35	45	05	10
2. Obtains additional information from special resource individuals.	30	65	05	0
3. Interprets and analyzes findings in relation to problem subject.	35	60	05	0
4. Formulates methods and means for solving problem.	70	20	10	0
5. Presents overview reflecting total scope of problem to consultee.	50	45	05	0
6. Substantiates conclusions given with relevant documentation.	60	25	10	05
7. Provides feasible alternatives and innovative methods for dealing with problem.	50	35	10	05
8. Communicates ideas and information with confidence.	55	40	05	0
9. Encourages implementation of proposed recommendations.	45	50	05	0
10. Obtains results without causing anxiety.	40	45	10	05

Major Responsibility V: Conducts educational activities in connection with public information and staff training.

Percentage (%):
(total 20 responses)

Specific Responsibilities:

Weighting: 4 3 2 1

1. Helps instruct staff members in performance of certain job activities.	40	45	10	05
2. Assists in the planning of workshops and conferences within area of expertise.	55	35	05	05
3. Participates in public discussions on environmental health concerns.	60	30	05	10
4. Gives lectures to concerned people.	50	25	20	05
5. Helps prepare information for news media.	45	25	25	05
6. Coordinates learning objectives with educational methodology.	30	60	05	05
7. Translates technical knowledge to audience level.	70	25	05	0
8. Utilizes audio-visual materials to facilitate presentations.	55	25	10	10

Major Responsibility VI: Conducts liaison activities with other agencies and groups.

Specific Responsibilities

4 3 2 1

1. Demonstrates leadership abilities in working with others.	55	30	15	0
2. Motivates and encourages others to work for needed changes.	55	40	05	0
3. Shares ideas on current methods and techniques for handling problems.	70	25	05	0
4. Collaborates with others in rendering needed services.	65	35	0	0

Practitioner Position #3

Entry-Level/Generalist

Major Responsibility I: Plans and directs program activities.

Specific Responsibilities:

Percentage (%):
(total 20 responses)

Weighting: 4 3 2 1

1. Determines health status and needs of community.	70	25	0	05
2. Reviews staff recommendations regarding program adequacy.	35	40	10	15
3. Considers agency and community limitations on tools and resources needed for program.	30	50	20	0
4. Develops and allocates resources, including manpower, time, equipment, and facilities.	45	30	10	15
5. Establishes policy and procedures for program activities.	50	30	15	05
6. Delegates responsibilities for program implementation.	30	45	15	10
7. Coordinates activities with agency goals and objectives.	45	40	15	0
8. Assesses program effectiveness and efficiency.	40	45	15	0
9. Holds staff meetings to discuss program evaluation.	45	30	0	25
10. Re-directs program efforts and activities as necessary.	50	25	20	05

Major Responsibility II: Initiates enforcement proceedings in connection with environmental health violations.

Specific Responsibilities:

4 3 2 1

1. Reviews staff reports, recommendations, and actions.	40	45	05	10
2. Determines applicability of statutes, codes, and regulations.	65	20	15	0
3. Authorizes issuance of citations or directives for compliance.	65	15	15	05
4. Schedules and conducts hearings.	40	25	15	20
5. Testifies as an expert witness in court.	55	25	10	10
6. Reviews and evaluates prepared drafts of legal cases.	30	50	10	10

Major Responsibility III: Approves environmental health permits, licenses, and contracts.

Specific Responsibilities:

4 3 2 1

1. Reviews staff recommendations of application or submitted specifications.	60	20	15	05
2. Determines compliance according to regulations, standards, and codes.	75	25	0	0

Position #3, cont'd.

Specific Responsibilities:	Weighting:	Percentage (%): (total 20 responses)			
		4	3	2	1
3. Grants issuance of permit license if approval is appropriate.		45	40	15	0
4. Reviews and evaluates contract proposals.		30	30	25	15
5. Authorizes bids and proposals for contracted services.		15	25	30	30
6. Submits required reports and documents to governmental authorities.		55	30	10	05

Major Responsibility IV: Evaluates and recommends legislation.

Specific Responsibilities:	4	3	2	1
1. Determines needs of community and objectives of agency with reference to legislative acts.	60	20	10	10
2. Studies and interprets previously proposed or enacted legislation.	45	35	15	05
3. Prepares suggestions in the form of amendment drafts.	40	40	05	15
4. Supports position taken on issues with relevant documentation.	50	35	05	05

Major Responsibility V: Supervises staff activities.

Specific Responsibilities:	4	3	2	1
1. Interviews applicants for position openings.	45	10	20	25
2. Complies with equal opportunity employment guidelines.	50	05	30	15
3. Projects manpower staffing needs.	20	50	25	05
4. Directs implementation of on-job training programs.	30	40	20	10
5. Provides continuing education programs for staff.	45	30	20	05
6. Discusses positive and negative aspects of job effectiveness with staff members.	45	40	05	10
7. Provides career guidance to employees.	30	20	45	05
8. Utilizes competency assurance methods.	40	45	10	05
9. Takes appropriate disciplinary action.	40	20	20	20
10. Encourages practitioners to utilize self-assessment techniques.	45	35	15	05
11. Encourages staff suggestions, constructive criticism, and creative innovations.	75	15	05	05
12. Provides positive reinforcement for jobs well done.	60	25	05	10

Major Responsibility VI: Serves as official representative of agency to others.Percentage (%):
(total 20 responses)

Weighting: 4 3 2 1

Specific Responsibilities:

1. Explains agency's official position on environmental health concerns.	70	20	10	0
2. Provides current information to others on relevant topics.	55	25	20	0
3. Motivates decision-making process through leadership and human relations techniques.	45	35	10	10
4. Discusses sensitive situation with concerned party in a diplomatic and empathetic manner.	70	15	10	05
5. Explains technical information concerning problem or violation fully and clearly.	70	30	0	0
6. Suggests viable alternative or appropriate action to be taken to resolve matter.	65	25	10	0
7. Writes or edits news releases.	20	45	30	05
8. Provides factual information to news media.	35	35	25	05

Major Responsibility VII: Conducts meetings and conferences.

Specific Responsibilities:

4 3 2 1

1. Maintains order of meetings or conferences.	35	40	15	10
2. Assures proper scheduling in accordance with agenda.	35	30	30	15
3. Motivates inter-communication between parties.	45	40	10	05
4. Utilizes group-dynamics techniques.	40	30	15	15

Weighting of Major Responsibilities
by Expert Committee Members

Environmental Health - Entry-Level
Generalist

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Position Classification #1: Total of Major Responsibilities = 6; high rank 6,
low = 1

Total Responses = 15

Points: Rank #:

Collects samples and specimens for laboratory analysis	(50)	3.5
Performs routine field tests	(51)	5
Conducts routine environmental health inspections	(72)	6
Communicates environmental health information to others	(49)	2
Represents department favorably to others	(50)	3.5
Works productively with other staff members	(43)	1

Position Classification #2: Total of Major Responsibilities = 6; high rank 6,
low = 1

Points: Rank #:

Plans and conducts environmental health investigations	(67)	6
Participates in planning and development of environmental health program activities	(47)	2
Provides consultative services relating to environmental health problems	(64)	5
Conducts educational activities in connection with public information and staff training	(52)	4
Conducts liaison activities with other agencies and groups	(35)	1
Reviews and evaluates documents, licensure applications, and planning specifications	(50)	3

Position Classification #3: Total of Major Responsibilities = 7; high rank 7,
low = 1

Points: Rank #:

Plans and directs program activities	(90)	7
Initiates enforcement proceedings in connection with environmental health violations	(57)	4.5
Approves environmental health permits, licenses, and applications	(51)	3
Evaluates and recommends legislation	(48)	2
Supervises staff activities	(80)	6
Serves as official representative of agency to others	(57)	4.5
Conducts meetings and conferences	(37)	1

WEIGHTING OF SPECIFIC RESPONSIBILITIES
By Expert Committee

Practitioner Position #1

Entry-Level/Generalist

Major Responsibility I. Collects samples and specimens for laboratory analysis.

Specific Responsibilities:

Percentage (%):
 (total 15 responses)

Weighting: 4 3 2 1

1. Interprets maps, codes, graphs, and other geographical information.	20	40	26	13
2. Identifies designated sampling site.	40	33	13	13
3. Describes objectives and methods for collecting sample or specimen.	26	26	40	06
4. Answers clearly and completely questions regarding sampling	53	26	13	06
5. Identifies the sample or specimen to be taken.	53	26	13	06
6. Utilizes the necessary equipment in conducting sampling procedures.	53	40	06	0
7. Collects and transfers sample or specimen to container	40	40	20	0
8. Labels all specimens and samples collected with name and location.	53	26	13	06
9. Observes unique or unusual conditions regarding sampling site or collected item.	73	13	13	0
10. Makes limited interpretations regarding the environmental health implications of observed situation.	33	20	33	13
11. Discusses findings with concerned parties on-site.	40	20	26	13
12. Records pertinent information in writing for further evaluation	73	13	13	0
13. Preserves and protects sample or specimen collected	46	46	06	0
14. Arranges safe transportation of collected sample or specimen to laboratory	33	26	26	13

Major Responsibility II. Performs routine field tests.

Specific Responsibilities:

4 3 2 1

1. Describes objectives and methods for performing test to concerned parties.	26	33	20	20
2. Answers pertinent questions completely and clearly.	53	06	33	06
3. Prepares testing apparatus for operation.	33	46	13	06
4. Mixes stock solutions for testing.	20	20	26	33
5. Performs testing activities in proper sequence.	80	13	06	1
6. Conducts basic measurements and calculations.	omission			

Practitioner Position #1, cont'd.

Specific Responsibilities:

Weighting:	Percentage (%): (total 15 responses)			
	4	3	2	1
7. Logs observations, calculations, and test readings.	66	33	0	0
8. Records specific conditions that influence test.	80	13	06	0
9. Makes limited interpretations regarding environmental health implications of test.	20	40	26	13
10. Communicates findings to appropriate parties.	40	46	06	06
11. Conducts routine maintenance checks of test equipment.	20	26	46	06
12. Makes necessary routine repairs.	13	06	46	33

Major Responsibility III. Conducts routine environmental health inspections.

Specific Responsibilities:

	4	3	2	1
1. Makes proper introduction to parties involved.	40	33	20	06
2. Explains objectives of inspection.	46	40	13	0
3. Answers pertinent questions completely and clearly.	66	26	06	0
4. Observes and records general conditions present.	66	33	0	0
5. Identifies deficiencies and violations.	80	20	0	0
6. Conducts basic tests and calculations.	53	40	06	0
7. Interviews persons on-site for additional information.	33	60	06	0
8. Makes limited interpretations regarding environmental health implications of situation observed.	26	46	26	0
9. Identifies environmental health standards, codes, and regulations that are applicable.	53	13	33	0
10. Requests technical expertise for special problems encountered.	66	13	20	0
11. Explains violations, regulations, or other problems to involved parties.	46	46	06	0
12. Requests compliance or corrective measures to be taken.	40	40	20	0
13. Compiles and submits detailed report of findings and recommendations.	60	33	06	0

Practitioner Position #1, cont'd.

Major Responsibility IV: Communicates environmental health information to others.Percentage (%):
(total 15 responses)

Weighting: 4 3 2 1

Specific Responsibilities:

1. Locates resources for obtaining educational materials.	06	26	46	20
2. Procures requested information items.	26	26	33	13
3. Completes checklist and survey forms.	33	26	33	06
4. Writes reports in an accurate, coherent style.	66	33	0	0
5. Addresses people contacted in a business-like manner.	46	20	26	06
6. Explains environmental health regulations and codes in language understandable to others.	73	13	13	0
7. Suggests corrective actions to violators in a factual manner.	60	26	13	0
8. Uses the phone correctly in handling requests, complaints, and messages.	46	20	26	06
9. Establishes a feeling of mutual cooperation and trust.	60	20	13	06
10. Utilizes proper questioning techniques.	40	46	13	0
11. Listens to and interprets respondent's information with awareness and sensitivity.	46	53	0	0

Major Responsibility V: Works productively with other staff members.Specific Responsibilities:

4 3 2 1

1. Sets own objectives in conjunction with fellow employees.	26	40	06	33
2. Provides suggestions and support for fellow staff in course of work.	20	40	33	06
3. Accepts constructive criticism in an effort to improve job effectiveness.	60	13	20	06
4. Attends departmental meetings and workshops.	40	33	13	13
5. Shares ideas in discussions on departmental problems.	40	40	13	06

Major Responsibility VI: Represents department favorably to the public.Specific Responsibilities:

4 3 2 1

1. Manifests a desire to help and not punish; advise and not order.	53	06	40	0
2. Deals fairly with all societal elements, regardless of race, color, creed, sex, or age.	80	13	06	0
3. Explains the need for environmental health improvements within the community.	60	26	13	0
4. Adequately describes the department's role in meeting stated problems.	60	20	20	0

Practitioner Position #2

Entry-Level/Generalist

Major Responsibility I. Plans and conducts environmental health investigations.Percentage (%):
(total 15 responses)

Specific Responsibilities:	4	3	2	1
1. Collects and evaluates background information.	40	33	26	0
2. Delineates causal relationships.	46	33	13	06
3. Formulates procedural methodology for conducting investigation.	53	13	20	13
4. Coordinates investigative efforts with other agencies.	26	33	26	13
5. Assigns or conducts appropriate inspections and surveys.	80	13	06	0
6. Maintains open communications with those involved in investigation.	46	46	06	0
7. Analyzes and correlates background information with on-site data.	53	33	13	0
8. Interprets investigative findings with regard to applicable statutes, codes, and regulations.	53	20	13	0
9. Orders corrective measures to be taken.	40	46	06	06
10. Plans for follow-up inspections to assure compliance.	40	40	20	0
11. Recommends further legal action against violators, if necessary.	26	46	20	06

Major Responsibility II. Participates in planning and development of environmental health program activities.

Specific Responsibilities:	4	3	2	1
1. Defines, quantifies, and prioritizes environmental health problems within area.	73	13	06	06
2. Evaluates adequacy of current environmental programs to meet needs.	46	33	13	06
3. Incorporates the goals and mission of agency into proposed program.	46	46	06	0
4. Devises program methods and procedures to meet stated needs.	46	53	0	0
5. Identifies tools and resources needed for program implementation.	20	46	20	13
6. Sets measureable objectives, for both program and self-assessment.	66	26	0	06
7. Compiles reports and documents substantiating needs and proposed methodology.	26	40	26	06
8. Recommends evaluation methods to assure effective progress of program activities.	33	46	13	06
9. Explains and promotes implementation of proposed program activities.	66	20	06	06

Major Responsibility III: Reviews and evaluates documents, licensure applications, and planning specifications.

Percentages (%):
(total of 15 responses)

Specific Responsibilities:

Weight: 4 3 2 1

1. Checks items for completeness, accuracy, and style.	33	46	20	0
2. Determines degree of compliance with statutes, standards, and regulations.	73	26	0	0
3. Suggests modifications and revisions needed.	40	53	0	06
4. Documents recommendations with supportive data.	60	06	26	06
5. Submits completed evaluation and recommendations in written form.	53	40	0	06

Major Responsibility IV: Provides consultative services relating to environmental health problems.

Specific Responsibilities:

4 3 2 1

1. Compiles and reviews reports, literature, and statistical data.	13	40	20	26
2. Obtains additional information from special resource individuals.	46	20	26	06
3. Interprets and analyzes findings in relation to problem subject.	80	20	0	0
4. Formulates methods and means for solving problem.	53	20	20	06
5. Presents overview reflecting total scope of problem to consultee.	53	46	0	0
6. Substantiates conclusions given with relevant documentation.	73	26	0	0
7. Provides feasible alternatives and innovative methods for dealing with problem.	60	20	13	06
8. Communicates ideas and information with confidence.	66	33	0	0
9. Encourages implementation of proposed recommendations.	40	33	20	06
10. Obtains results without causing anxiety.	20	46	20	13

Major Responsibility V: Conducts educational activities in connection with public information and staff training.

Percentages (%):
(total of 15 responses)

Specific Responsibilities:

	4	3	2	1
1. Helps instruct staff members in performance of certain job activities.	46	33	06	13
2. Assists in the planning of workshops and conferences within area of expertise.	40	40	13	06
3. Participates in public discussions on environmental health concerns.	40	33	26	0
4. Gives lectures to concerned people.	20	40	40	0
5. Helps prepare information for news media.	20	40	33	06
6. Coordinates learning objectives with educational methodology.	33	33	20	13
7. Translates technical knowledge to audience level.	65	33	0	06
8. Utilizes audio-visual materials to facilitate presentations.	20	13	46	20

Major Responsibility VI: Conducts liaison activities with other agencies and groups.

Specific Responsibilities

	4	3	2	1
1. Demonstrates leadership abilities in working with others.	60	20	06	13
2. Motivates and encourages others to work for needed changes.	53	33	06	06
3. Shares ideas on current methods and techniques for handling problems.	53	40	06	0
4. Collaborates with others in rendering needed services.	73	20	06	0

Practitioner Position #3

Entry-Level/Generalist

Major Responsibility I: Plans and directs program activities.Percentages (%):
(total 15 responses)

Specific Responsibilities:

Weighting: 4 3 2 1

1. Determines health status and needs of community.	60	13	13	13
2. Reviews staff recommendations regarding program adequacy.	46	33	13	06
3. Considers agency and community limitations on tools and resources needed for program.	40	33	20	06
4. Develops and allocates resources, including manpower, time, equipment, and facilities.	73	0	20	06
5. Establishes policy and procedures for program activities.	53	33	0	13
6. Delegates responsibilities for program implementation.	53	33	0	13
7. Coordinates activities with agency goals and objectives.	66	20	06	06
8. Assesses program effectiveness and efficiency.	66	20	13	0
9. Holds staff meetings to discuss program evaluation.	40	26	33	0
10. Re-directs program efforts and activities as necessary.	73	06	20	0

Major Responsibility II: Initiates enforcement proceedings in connection with environmental health violations.

Specific Responsibilities:

4 3 2 1

1. Reviews staff reports, recommendations, and actions.	40	40	20	0
2. Determines applicability of statutes, codes, and regulations.	53	26	20	0
3. Authorizes issuance of citations or directives for compliance.	66	20	13	0
4. Schedules and conducts hearings.	53	20	13	13
5. Testifies as an expert witness in court.	40	33	20	06
6. Reviews and evaluates prepared drafts of legal cases.	53	13	13	20

Major Responsibility III: Approves environmental health permits, licenses, and contracts.

Specific Responsibilities:

4 3 2 1

1. Reviews staff recommendations of application or submitted specifications.	46	26	13	13
2. Determines compliance according to regulations, standards, and codes.	53	26	13	06

Position #3, cont'd.

Percentages (%):
(total 15 responses)

Specific Responsibilities:	Weighting: 4	3	2	1
3. Grants issuance of permit or license if approval is appropriate.	53	13	20	13
4. Reviews and evaluates governmental or industrial contract proposals.	33	26	20	20
5. Authorizes bids and proposals for contracted services.	40	13	33	13
6. Submits required reports and documents to governmental authorities.	46	33	13	06

Major Responsibility IV: Evaluates and recommends legislation.

Specific Responsibilities:	4	3	2	1
1. Determines needs of community and objectives of agency with reference to legislative acts.	66	33	0	0
2. Studies and interprets previously proposed or enacted legislation.	66	13	20	0
3. Prepares suggestions in the form of amendment drafts.	46	40	06	06
4. Supports position taken on issues with relevant documentation.	80	20	0	0

Major Responsibility V: Supervises staff activities.

Specific Responsibilities:	4	3	2	1
1. Interviews applicants for position openings.	33	33	26	06
2. Complies with equal opportunity employment guidelines.	13	46	40	0
3. Projects manpower staffing needs.	40	46	06	06
4. Directs implementation of on-job training programs.	66	13	13	06
5. Provides continuing education programs for staff.	33	53	06	06
6. Discusses positive and negative aspects of job effectiveness with staff members.	60	26	06	06
7. Provides career guidance to employees.	20	40	33	06
8. Utilizes competency assurance methods.	26	33	33	06
9. Takes appropriate disciplinary action.	33	33	26	0
10. Encourages practitioners to utilize self-assessment techniques.	40	33	13	13
11. Encourages staff suggestions, constructive criticism, and creative innovations.	73	13	06	06
12. Provides positive reinforcement for jobs well done.	60	33	06	0

Major Responsibility VI: Serves as official representative of agency to others.Percentage (%):
(total 15 responses)

Weighting: 4 3 2 1

Specific Responsibilities:

1. Explains agency's official position on environmental health concerns.	80	20	0	0
2. Provides current information to others on relevant topics.	33	60	06	0
3. Motivates decision-making process through leadership and human relations techniques.	46	33	06	13
4. Discusses sensitive situation with concerned party in a diplomatic and empathetic manner.	66	26	06	0
5. Explains technical information concerning problem or violation fully and clearly	73	26	0	0
6. Suggests viable alternative or appropriate action to be taken to resolve matter.	53	33	06	06
7. Writes or edits news releases.	06	40	33	20
8. Provides factual information to news media.	40	26	33	0

Major Responsibility VII: Conducts meetings and conferences.

Specific Responsibilities:

4 3 2 1

1. Maintains order of meetings or conferences.	33	33	13	20
2. Assures proper scheduling in accordance with agenda.	13	46	33	06
3. Motivates inter-communication between parties.	66	20	06	06
4. Utilizes group-dynamics techniques.	53	26	06	13